

# **college** AND UNIVERSITY **business**

**NOVEMBER 1957**

*Adding to Academic Efficiency*

*Objectives in Personnel Administration*

*Functions of a College Building Consultant*

*Trends in College Food Service*

*How to Purchase Printing*



SNACK BAR, SOUTHWESTERN STATE COLLEGE, WEATHERFORD, OKLA. (page 34)

"Little things affect peoples  
attitude toward you"



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• The new \$15-million CHICAGO SUN-TIMES building stands on a scenic riverside site in the heart of the city and combines the latest in design and excellent efficiency. The two lower floors are encased in polished granite, and above are vertical aluminum piers which extend to the terraced roof where the heating unit is housed in a penthouse. Also on the roof is a heliport for both passenger service and speedy newspaper transport. A corridor through the building connects with a tree-studded plaza leading to famed Michigan Avenue. The decision to provide the finest possible equipment resulted

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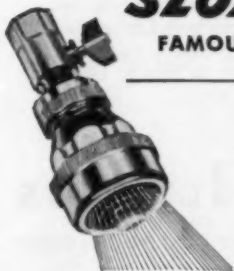
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# college AND UNIVERSITY business

## NOVEMBER 1957

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AMONG THE AUTHORS: Herbert Stroup, dean of students at Brooklyn College, describes the efforts being made there to acquaint parents of students with the educational objectives of the institution. During 1953 and 1954, Dr. Stroup was director for Greece of the Congregational Christian Service Committee, which was engaged in social service projects on a countrywide basis. His travels at that time took him through many of the Arab countries of the Middle East. Robert F. Newton, chief accountant for Ball State Teachers College, and also its finance officer for auxiliary enterprises, reports on effective use of office machines in obtaining and developing better cost control records at Ball State. Prior to accepting his present position in 1954, he was a member of the administrative staff of Butler University, Indianapolis, where he managed the bookstore and served as director of the student union. John H. Butler, executive dean of San Francisco State College, reports on his experience as building coordinator. In 1946 when he was assigned this work only one other college had adopted this idea of making one person responsible for all planning.

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## QUESTIONS AND ANSWERS

### Report to President?

Question: In establishing an organization chart of administrative personnel, is it better practice for the fiscal officer to report to the president or direct to the board of trustees?—L.K., W.Va.

ANSWER: The president, in order to fulfill his responsibility as chief executive officer, must have over-all authority and responsibility for both academic and fiscal affairs of the institution. For this reason, it is preferable to have the fiscal officer report to the president. The fiscal officer should have a clear-cut delegation of responsibilities to him for matters that should include fiscal reports to the board. All fiscal reports should be reviewed with the president before presentation to the board. The fiscal officer always should be present at board meetings and should present the financial statements and reports to the board.—GEORGE F. BAUGHMAN, *vice president, New York University.*

### What Help to Expect

Question: What help and data should a food service director expect from the business manager's office?—F.B., N.J.

ANSWER: The first thing any food service director is entitled to expect from the business manager is a clear definition of the job. This should include a statement of standards of quality of food and general performance. The food service director should know very clearly the extent of his authority and responsibility. He should know just how his department is "keyed in" with other departments of the university, such as faculty, maintenance, special service, and social programming.

The business manager should furnish the food service director with an adequate system of reports such as a budget and a system of cost accounting realistically tailored for the food service department. Along with this a system of periodic audits should be in effect. These should be on a weekly or monthly basis and should be kept on schedule in order that the food service director can have an up-to-date picture of the department's progress and standing.

The food service director has a right to expect to have a voice in both immediate and long-range university

planning that will affect his department. Most important of all, the business manager should ensure the food service director an atmosphere of mutual respect and cooperation in which he may progress and grow on the job.—ELSIE DE PONTE, *director of residence halls and food service, De Pauw University.*

### Conserving Resources

Question: How can we conserve and improve those distinctive resources of the small college when we face a decade of probable expansion?—M.M., Miss.

ANSWER: The only way I know of is to limit enrollment to the optimum number of students based on size of plant, facilities, and, more importantly, educational objectives. The way to improve these resources is to develop higher selectivity of registrants, to improve facilities as an aid to instruction, and to upgrade the faculty.

To limit enrollment in the face of expected pressures from alumni, parents, friends, trustees and the public in general will require firmness, fortitude and courage. Some small colleges may be able to hold the line. Many will not. I wouldn't feel too badly about it because undoubtedly American ingenuity and resourcefulness will provide adequate, if not the highest, quality education in any event.

To attain higher selectivity of students will not be difficult with methods at hand. Obtaining and maintaining an adequate faculty, to say nothing of upgrading, is something different. Body-snatching is already being practiced in some select circles in higher education, and there will be more of this piracy, not less, in years to come.

For an informative discussion on this question, I refer the inquirer to "Increased Enrollment and Institutional Policy" beginning on page 15 of the "Proceedings of the National Federation of College and University Business Officers Associations at its First Quinquennial Assembly June 26 to 28, 1955," in which President Gould of Carleton College and President Wilson of the University of Oregon ably state the case from the respective standpoints of private and public institutions.—BRUCE POLLOCK, *vice president and treasurer, Carleton College.*

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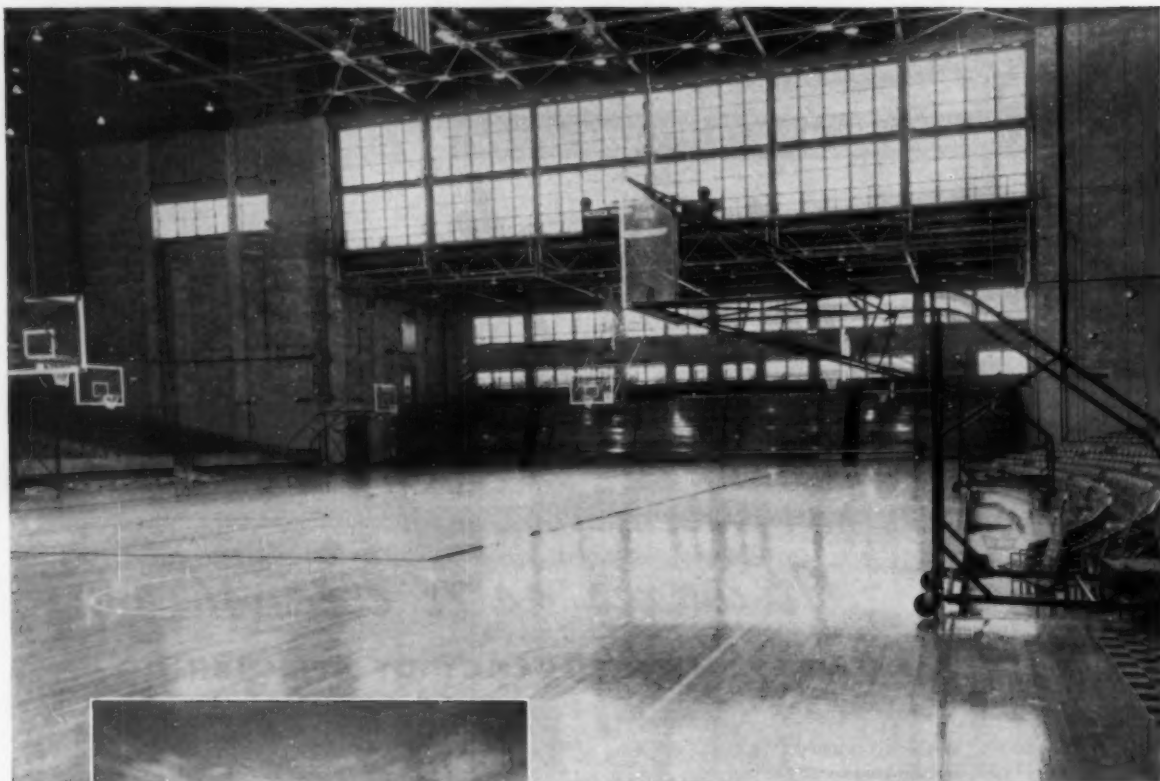
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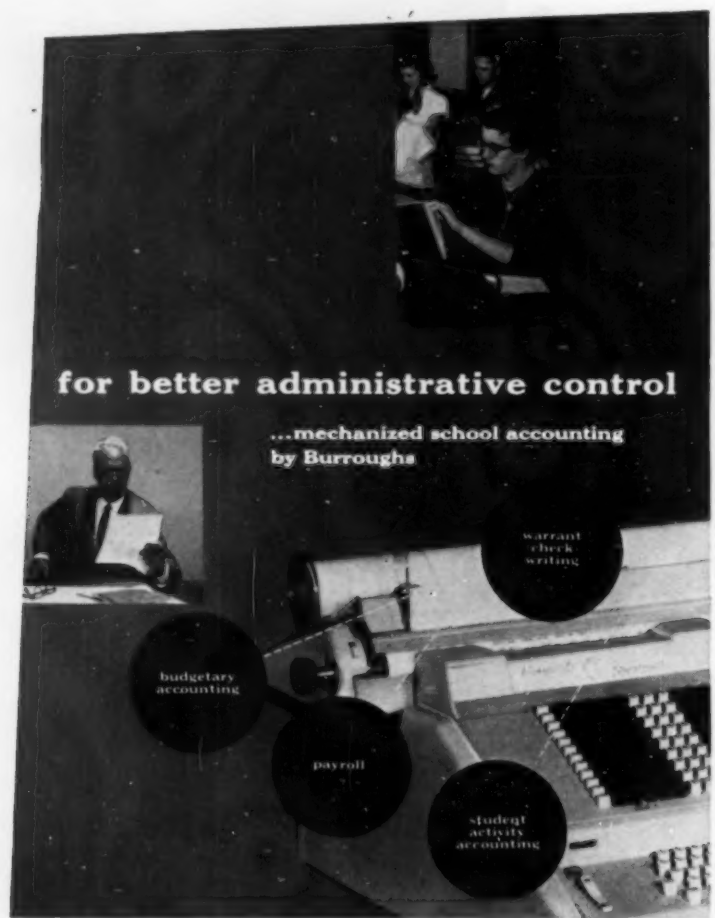
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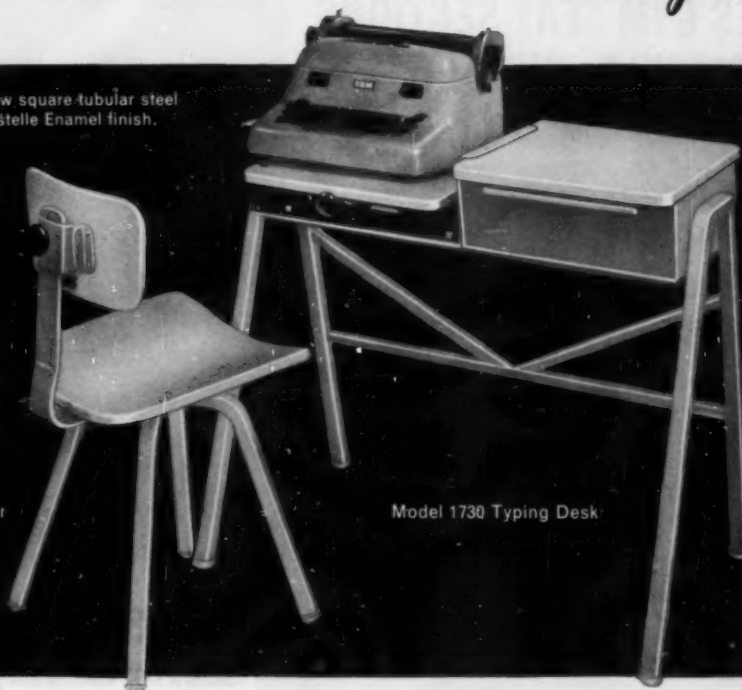
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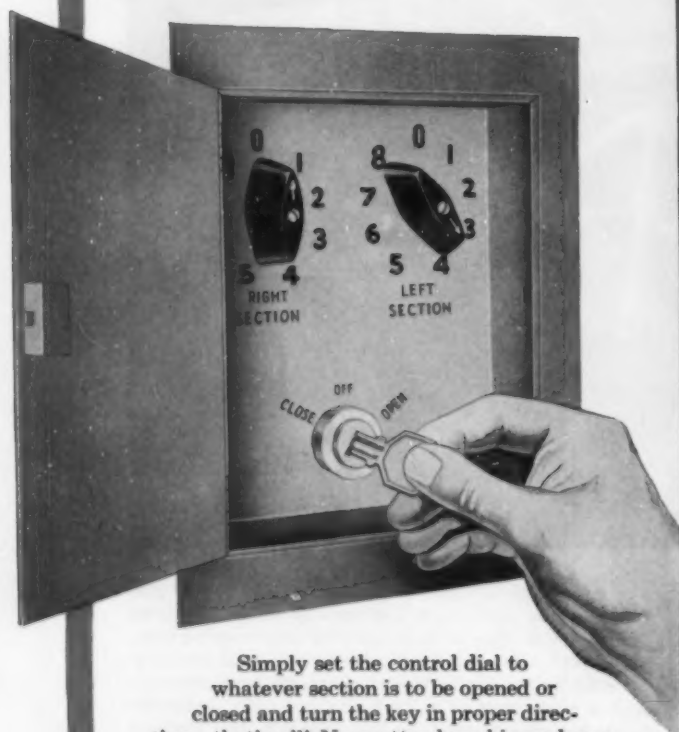
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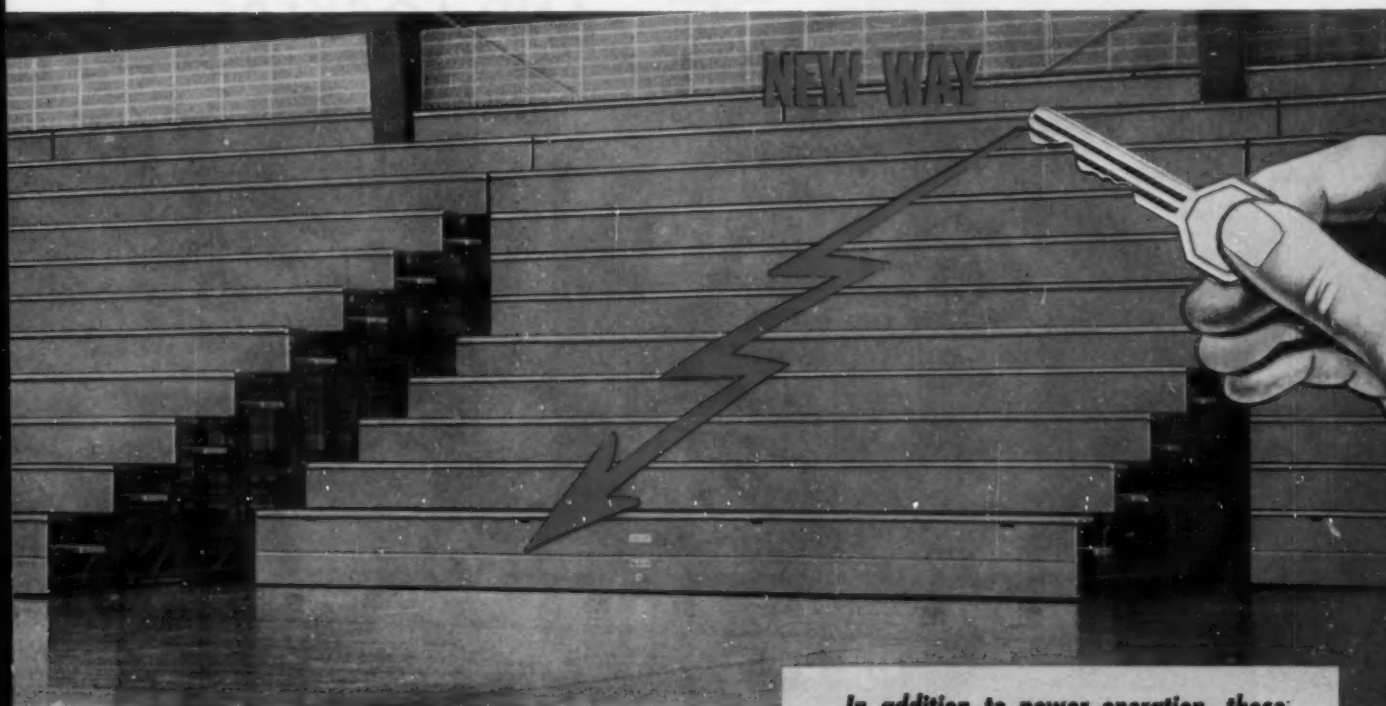
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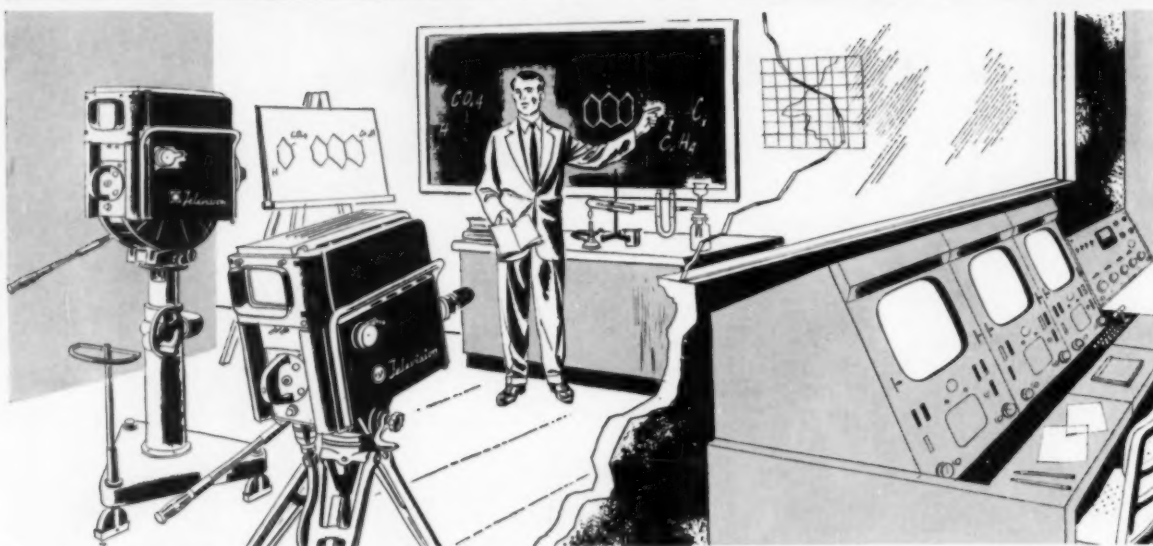
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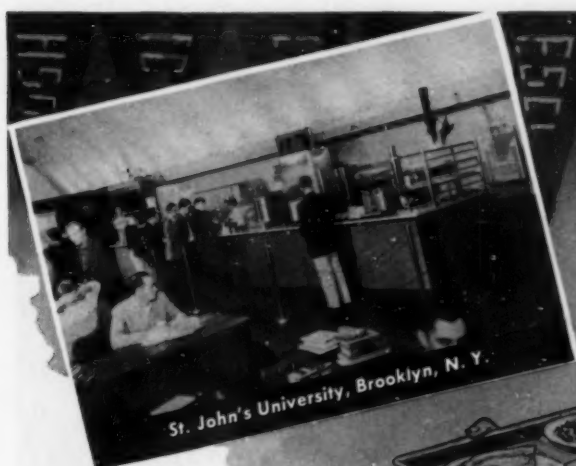
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## Report From the Federation

**C. O. EMMERICH**

*President, National Federation of  
College and University Business Officers Associations*



THE NATIONAL FEDERATION OF COLLEGE AND UNIVERSITY Business Officers Associations is probably the neophyte among professional organizations representing institutions of higher education on the national level. Just seven years ago, in Chicago, leadership of the American, Central, Eastern, Southern and Western Associations of College and University Business Officers and the National Association of Educational Buyers, after years of work and thought, agreed to pool their efforts on the national level as a means of furthering the interests of higher education. The purposes of the Federation from the beginning were expressed in a simple, direct statement: "to develop, promote and improve business and financial principles and practices in the administration of institutions of higher education."

The organization is equally simple. Each of the six member associations elects three individual members who comprise the 18 member board of directors. The board elects from its membership the officers and executive committee. The Federation program is carried on by the elected officers and through committees appointed by the board to conduct specific activities. As organized, the member associations have sacrificed nothing of their individual identity or independence, while achieving complete and effective unity on the national front.

Aided by the Fund for the Advancement of Education, the Federation sponsored a 60 College Study during 1953-54, designed to help business officers establish uniform accounting procedures, and develop a standard chart of accounts and also to provide a basis for meaningful comparisons of income and expenditures. The completed study was published and nearly 6000 copies were distributed to college and university officials and other interested people.

The first national quinquennial assembly of the Federation was held at Estes Park, Colo., in June 1955. The large attendance and the interesting program satisfied even the most skeptical. Dr. Arthur S. Adams, president of the American Council on Education, a speaker at the assembly, stated: "Your meeting marks a milestone in the development of the professional status of educational business officers. I have long esteemed the work that business officers

do and the important part they play in the whole educational process." Plans are being formulated for the second assembly in 1960.

In its Second Report to the President, the Committee on Education Beyond the High School recommended "that increasing emphasis be given to all measures which can bring about greater efficiency in management and utilization of the facilities of institutions." The Federation was well aware of this need for assistance and on July 1, 1956, it established the National Federation Consulting Service, which has devoted its efforts to aiding colleges improve and strengthen their business practices.

The Federation's oldest and strongest committee is the standing committee on government relations, often referred to as the Middlebrook committee, and presently led by William B. Harrell of the University of Chicago. In 1956 the Federation incorporated under the laws of the state of Illinois, thus providing a sound foundation for carrying out its aims, objectives and business activities.

At the board of directors' meeting this spring, the officers reexamined the policies and progress of the Federation. As a result, a set of objectives was adopted which includes (1) continuation of the Federation as organized, (2) improvement of communications with member associations and other professional educational groups, (3) strengthening the working relationship with the American Council on Education and fostering relationships with other associations concerned with higher education, (4) informing the presidents of colleges and universities of the aims and actions of the Federation, and (5) appointment of a study committee to consider aims and objectives of the Federation. Progress already has been made this year to implement this program.

The Federation has made a creditable beginning. I predict that, because of the recognized problems in financing higher education on local and national levels, the splendid service offered to education by the six member associations, and the seven years of successful experience of the National Federation, this new organization of business officers will grow in strength and importance. Its contribution will be felt throughout the realm of higher education.

# LOOKING FORWARD

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## For the Space Men

IN CONTRAST TO ROCKET MEN WHO ARE WONDERING what they can do with outer space, college and university executives are wondering what they can do with the space they have.

For the last two years the American Association of Collegiate Registrars and Admissions Officers has been tackling this problem seriously. With the financial support of the Fund for the Advancement of Education, this association has developed a "Manual for Studies of Space Utilization in Colleges and Universities." Co-authors of this book are Drs. John D. Russell and James I. Doi, men who have achieved national recognition for their research in higher education.

The authors conclude that for the most part colleges and universities have wasted facilities and faculty. They believe that intelligent assigning of classrooms and scheduling of classes would greatly increase efficiency and might meet the demands for classroom space to be created by the anticipated overflow enrollments of the future. They are critical of the quality of the space utilization studies available to them, stating that "relatively few reports show imaginative planning and skillful execution."

The manual deals in comprehensive fashion with the functions and limitations of a study of space utilization, the current status of such studies, the definition of terms to be established in setting up a study, recommended forms and procedure for collection of data, forms for the analysis and interpretation of data, and normative data for space utilization.

The publication of this manual by the American Association of Collegiate Registrars and Admissions Officers is a real service to higher education. Copies of the manual may be obtained for \$2 from Robert Mahn, registrar, Ohio University, Athens. A college executive who desires to stay on top of his job should have the volume available for ready reference.

## Nursing Education Costs

FOR MANY YEARS COLLEGES AND UNIVERSITIES HAVE conducted nursing education programs without a true appreciation of costs involved. In some cases the program has been established out of patriotic concern and nurses have received training in areas of public need irrespective of the economic feasibility of such a program.

In order to provide concrete data on which to build a collegiate program in nursing, the National League

for Nursing and the U.S. Public Health Service have collaborated on the preparation of a manual dealing with a cost analysis for collegiate programs in nursing. Part I of this study received editorial comment in these columns in February 1956.

The Manual of Nursing Education Costs, Part I, provided the means for analyzing the total current operating expenditures according to organization and function in each of the institutions participating in educational programs in nursing. Part II of the manual shows the current income and other resources that balance both the educational and noneducational expenditures which, together, constitute the aggregate cost of the program.

Whereas Part I might be considered as establishing the philosophy or purpose of collegiate programs of nursing education, Part II has moved into the area of specific and concrete procedures for establishing nursing education costs.

This two-part manual on collegiate programs of nursing education has been needed for some time. Now archaic, rule-of-thumb operation can be supplanted by an up-to-date method of determining nursing education costs. The job ahead is important, and college executives should be grateful for the new aids placed at their disposal.

## Sputnik to the Rescue

IVAN SPUTNIK REALLY HAS THINGS STIRRED UP. Heads of sovereign governments are busily conferring, national defense policies are being revamped, and every cause or organization seems to find some excuse for getting into the act.

It was inevitable that sooner or later Sputnik would be utilized as an argument for federal aid to education. As this genuinely significant scientific accomplishment was achieved in a nation in which the state dominates the educational and propaganda process, the answer must be in following that pattern.

George J. Hecht, publisher of *Parents' Magazine* and a recent visitor to Russia, states that the answer to the problem of recruiting brain power and obtaining facilities to meet Sputnik's challenge is twofold: a system of federal university scholarships for qualified but needy students, and federal aid for college expansion.

Protagonists for federal aid to education are persistent and vocal. Maybe Sputnik's beep-beep-beep in outer space will be louder and more effective than education's Washington lobbyists.

AMERICAN HIGHER EDUCATION IS confronted with problems of such magnitude and complexity in the next decade or two as to require all of the wisdom, imagination and cooperative energy of college and university trustees, administrative officers—business and academic—and faculty.

The problem confronting colleges and universities is how to provide education for at least twice as many college students as are now enrolled while maintaining and even improving the quality of education.

More than 30 per cent of all young people of college age the country over are enrolled in colleges and universities. The proportion has been going up at the rate of about 1 per cent a year. Between 1965 and 1970 our college population will have doubled. It is more likely to be trebled.

The title given to this impending increase is unfortunate—"the tidal wave" into our colleges. Tidal waves are disasters, whereas the prospect of mounting registrations in higher education is a boon.

#### RESOURCES ARE LIMITED

What makes it difficult to make the most of the opportunity opened to colleges and universities is the limitation of physical and human resources. We can hardly expect to double the physical plant of colleges in the next 10 years. It is even more difficult to see where qualified teachers will be found. Under the arrangements now prevailing, we shall need at least 350,000 new college teachers by 1970. Our graduate schools are currently producing about 9000 Ph.D's a year, half or a little less than half of whom enter teaching.

It seems clear that not more than one in six of the new faculty members required by colleges and universities during the next 10 years will possess the Ph.D. degree. Without assuming that a doctorate is essential to good teaching or that the possession of it guarantees good teaching, one, nevertheless, cannot avoid concern over the prospect of a teaching force with considerably less advanced study than our present one, at a time when both the need for knowledge and the rapid increase of it demand better preparation for college teaching.

The problem, then, is economic in

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From a paper presented at the Southern Association of College and University Business Officers, Charleston, S.C., 1957.

**The business manager, by collecting,  
marshaling and presenting data,  
can add to**

## ***Academic Efficiency and Quality***

**CLARENCE FAUST**

*Fund for the Advancement of Education, New York*

the broad and general sense of that term. The question is how to deploy efficiently the resources that are available for education. It is this necessity that will call for all of the imagination and wisdom which all of the various groups responsible for the conduct of higher education can muster.

We may now be obliged to put much greater responsibility upon students for their own education than we have in the past. Under the pressure of necessity we may devise plans for truly independent study. In some subjects the students may be provided with syllabuses and reading lists and be required to assume responsibility for their acquisition of knowledge in a field where courses are given.

We may profitably reexamine the practice of a fixed number of class sessions per week. In one subject the instructor might find it best to meet the class for three or four weeks to induct it into a field of study, indicate the kinds of problems to be faced in it, and demonstrate modes of valid solutions possible in it. The members of the class might then spend four or six weeks in independent study of the problems in the field and meet for the last part of the course for discussion and criticism of the work they have done.

In another subject it might be more profitable for a group of students to work on their own for three or four weeks, perhaps in appropriate back-

ground reading, before coming together for lectures and discussion. After five or six weeks of meetings, members of the class might pursue independent study in preparation for an examination at the end of the quarter or semester.

#### WOULD SAVE FACULTY TIME

These arrangements would save a good deal of faculty time. An instructor might handle the two courses at much less expenditure of time than two traditionally managed courses require. Or if he taught one of the courses in this fashion, he might have the time, which will be increasingly difficult to get, for the pursuit of research. Moreover, the students working under such arrangements might begin to assume some responsibility for their own educational progress, learn to take initiative and to come to grips with problems without being constantly on the apron strings of a faculty member, and, in short, make highly desirable progress toward intellectual maturity.

Placing greater responsibility upon students for their own education in these ways, or in better ones which may be developed if we put our minds to it, would be useful not only in producing more effective utilization of teaching resources but in correcting the practice of "packaging" education in courses.

Our present arrangement of courses, credits in courses, and degrees based



upon course credits, though less than a century old, has come to seem the natural or even inevitable way of providing a college education. Whatever its merits, it has certain obvious unfortunate consequences. One of its effects is to convince students that no one can learn anything except by sitting with 20 or 30 of his fellows three or four hours a week under the direction of an instructor for a quarter or semester.

We should not be as surprised as we sometimes profess to be by the fact that after graduation from college people rarely engage in any sustained and systematic study of a subject on their own. We have certainly done everything we could during the student's formal education to convince him that he can be expected to make progress in education or to learn anything about a subject only by taking a course in it.

#### TOO MANY COURSES

Still another weakness of collegiate education, which under the pressure of necessity we may take steps to correct, is the vast proliferation of courses in the college curriculum. It is small wonder that the student who must put together as best he can an intellectual fare in this cafeteria array of courses in the catalog is bewildered and all too often suffers intellectual indigestion.

One does not need to go so far as to propose that a department's offerings be limited to a few essential courses. But it might be useful in saving of faculty time and educationally advantageous for a department to fix upon a core of such courses and then make arrangements for each member of the department to teach each year a course in the subject in which he is carrying on research or in which he is deeply interested, with the clear understanding that courses of this second kind would not appear in succeeding college catalogs.

Another cluster of possibilities that needs to be studied consists of the new devices of communication now available to us, especially television and other audio-visual aids. Promising experimentation is going on in several places in the use of tape recorders in assisting students to acquire mastery of a foreign language. Television opens tremendous possibilities for meeting the problem of increasing numbers of college students. Television certainly cannot fulfill all of the functions of the book nor can it fulfill some of them as

successfully, but it has certain possibilities beyond those of print.

One important rôle of the business officer is to place before the administration and faculty of his institution the facts that need to be reckoned with in formulating clearly and in devising solutions for various parts of the large problem of the effective use of resources.

Take as an example the need for facts about the utilization of space. Ten or 12 years ago, when colleges were facing the prospect of a bulge in enrollments with the return of the G.I.'s, the administration and faculty of a western institution were about to reach the conclusion that enrollments could not go beyond 5000 students. This judgment was based upon the limitations of classroom space and the lack of resources for the construction of new classroom buildings.

At this point the business officer made a chart of the utilization of classrooms and laboratories. The chart revealed that by tradition all classes met from 8 to 12 a.m., only laboratory sections and a few advanced seminars coming in the afternoon hours. The simple device of charting the utilization of instructional space and calculating the percentage of actual utilization for an eight-hour day made it apparent that the estimates concerning the limitation of enrollment had been based on a dubious foundation.

In another institution, where the problem of raising faculty salaries was urgent, a decision was about to be reached to construct a new classroom building. A survey of the facts concerning space utilization cast serious doubts upon this decision and by, so to speak, recovering funds for the purposes of faculty salaries about to be allocated to building, the college retained good faculty members and consequently maintained or improved its educational quality.

#### TUITION ANOTHER PROBLEM

A larger question is the tuition situation. On the national average, tuition now carries a little more than half the costs of the student's education. This means that each student receives, in effect, a hidden or indirect scholarship.

There are, I suppose, three ways in which tuition might be fixed. One would be to fix tuition at costs and then to provide for scholarships in combination with loans to make sure that no able ambitious young person

is deprived of a college education. In one institution where a calculation of the consequences of such a move was made, it was found that, even with a very large expansion of scholarship and loan funds based upon the needs of students, a tuition-at-costs plan would permit a 40 per cent increase in faculty salaries.

A second way in which tuition might be fixed would be in relation to the cost of living. One college whose tuition record over the last 30 years was recently reviewed had moved from \$200 to \$450 in that period. This increase falls far short of the rise in the costs of living.

The third way of fixing tuition seems to be to look around in the spring to find out whether other institutions, and especially one's competitors, are likely to raise tuition and, if so, how much.

The facts about tuition will not, of course, resolve the policy questions regarding the relative desirability of one or the other of these methods, but the marshaling of facts could be an important contribution to the reaching of policy decisions. Perhaps the collection of data along these lines would stimulate a reexamination of a currently difficult and increasingly important problem of higher education.

#### ANALYZE GIFTS

A third kind of inquiry might be directed to an analysis of gifts. Some years ago, a university was offered a private library, unique and extensive of its kind. It was specified that the collection should be separately housed in the library as a memorial to its donor. The business office of the university made useful inquiry concerning several such previous gifts. It calculated the costs to the university of a collection of books that had come to its libraries a quarter of a century ago with an endowment providing several thousand dollars a year for its maintenance and increase. An isolation of the expenditures by the university for this collection over the years it had been housed revealed that the university had been out of pocket \$5000 annually in maintaining it. A review of student and faculty use of the collection made it clear that this had been an excessive amount. The university decided not to accept the new gift.

I mention a matter of this detail not for its intrinsic importance but as an instance of a kind of service of



potentially great value to colleges and universities and one bound to be of increasing importance in the coming years when university facilities will be so sorely stretched.

Still another area of inquiry is a review of the possibility of profitable cooperation between neighboring institutions. Some years ago the Fund for the Advancement of Education supported a cooperative study of a group of institutions closely related

geographically to discover how exchange of services might make each of them more effective with its student body. The study looked into such possibilities as cooperative buying, cooperative ground care, the offering of some subjects on only one campus with transportation provided to students of the other campuses. The study proved extremely fruitful. There must be many unexplored and valuable possibilities of this general kind.

I am aware that the business officer is not expected to formulate and propose the academic program of an institution, but I am convinced that his proper concern with what I call economics in the large sense is closely and inescapably related to academic problems. And I am convinced that at the level of the collection, marshaling and presentation of data, he has a great contribution to make to academic efficiency and quality. #

## When Purchasing Printing

D. FRANCIS FINN

Purchasing Agent, Purdue University, Lafayette, Ind.

THE PROPER PURCHASING OF PRINTING offers great possibilities for savings to every college purchasing agent through either better quality or reduced expenditures. At Purdue University more than \$200,000 a year is paid to commercial printers. Printing costs for a large educational institution probably will run from 3 to 6 per cent of the total purchasing dollar, and it may run as high as from 15 to 18 per cent in a smaller college.

Proper procurement of printing is really a "purchasing" function as differentiated from a "buying" function. Buying is operating in the narrow field of being told what is required and requested, of obtaining competitive prices, and of issuing a purchase order. Purchasing is analyzing the over-all problem of what is needed; how the need can best be satisfied; alternate methods of satisfying it; determining what method seems to be the most economical; obtaining competitive prices, and selecting a vendor to perform the work.

In purchasing printing, when a new job is requested it is important for the university editor or the purchasing agent to work with the persons

desiring the work done to find out just what the work is intended for. Is it for internal consumption? Is it promotion, or is it only informational? For the group, to whom it is going, should it look expensive or should it appear "cheap." For example, for an alumni group, an inexpensive appearing type of publication might be selected. Basically, we want attractive, inexpensive publications to do the job for which they are intended.

The purchasing department is in the position to be most familiar with the over-all printing problems of an institution and should be able to make evaluations of these problems to determine the quality and type of work required to achieve the proper results from the printed material. If the institution employs a full-time or part-time editor, he should and would assume these responsibilities. It is also well to have a publications committee to review all publications of a promotional nature as to style and as to their conformity with the institution's standards and philosophy.

To approach the actual purchasing problem, the first step is the preparation of printing specifications. We must state (1) the number of copies; (2) the size and number of pages; (3) letterpress or offset; (4) the

paper, color, grade, weight, finish; (5) the cover stock, color, grade, weight and finish; (6) the ink; (7) the size and style of type; (8) art work and halftones; (9) other instruction (perforations, numbering, binding, padding), and (10) wrapping and delivery instructions.

*Number of copies.* Much of the cost of printing is in the initial composition costs and make-ready time for the presses, so that it is important to order in sufficient quantities. On the other hand, it is dangerous to order too heavily. A one-year supply seems to be a good average, although for some jobs a two years' supply may be desirable. On other jobs where the future is indefinite, a six or eight months' supply may be sufficient. Forms that are 6 or 7 years old can be found in any institution. Although they may still be usable, such use should be avoided as they look faded and may be somewhat obsolete.

To illustrate the cost differences to consider when determining the quantity to order, the following example is taken from a typical printer's price schedule. A 16 page brochure for press work and folding for 500 copies will cost \$13.80; for 1000 copies, \$19; for 5000 copies, \$30.60, and for 50,000 copies, \$207.25. Composition costs

From a paper presented at the meeting of the National Association of Educational Buyers, Cincinnati, 1957.

# BOOKLET SIZE CHART

Size of Printed Unit	Standard Paper Sizes	Practical Printing Multiples	No. of Pages Cut From a Sheet
4 1/4 x 5 3/4	35 x 45	2, 4, 8, 16, 32 and 64 pages	128
4 1/2 x 6	25 x 38 38 x 50	2, 4, 8, 16, 32 and 64 pages	64 128
4 x 9	38 x 50	2, 4, 6, 8, 12, 16, 24 and 48 pages	96
5 1/2 x 8 1/2	35 x 45	2, 4, 8, 16 and 32 pages	64
6 x 9	25 x 38	2, 4, 8, 16 and 32 pages	32 64
7 3/4 x 10 1/2	32 x 44	2, 4, 8, 16 pages	32
8 1/2 x 11	35 x 45	2, 4, 8, 16 pages	32
9 x 12	38 x 50	2, 4, 8, 16 pages	32

This "booklet size" chart gives some of the comparative sizes of booklets that are standard and the standard sheets from which they can be cut.

would be the same — \$83 for eight point types. In the bindery also there are unit savings through increased quantity.

**Size and number of pages.** The size and number of pages constitute the basic starting point. It is important to use sizes for forms and booklets that conform to multiples of standard paper sizes, so that they can be folded and cut easily into standard form or booklet sizes with no paper waste.

There are also standard cover stock sizes and standard sizes for bond paper as follows:

## Cover stock sizes:

20 x 26;  
23 x 25;  
26 x 40.

## Bond stock sizes:

17 x 22, 22 1/2 x 35;  
19 x 24, 22 x 34;  
17 x 28, 24 x 38;  
17 1/2 x 22 1/2, 28 x 34.

The basic sizes for booklets are sheets 22 1/2 by 35; 25 by 38; 28 by 42; 32 by 44; 35 by 45, and 38 by 50. The other papers, the bonds and the cover stocks, come in other sizes to suit the printing requirements. It is necessary to become familiar with these basic sizes to be able to buy printing economically.

Often people design forms or materials that take odd and in-between sizes that require trimming. Sometimes the special size is necessary but oftener it is a matter of education as to what standard paper sizes are. Also, odd size forms do not fit into standard filing cabinet drawers. Along with the size of the booklet,

the number of pages must be specified. It is well to remember in arriving at the number of pages, which is governed to a great extent by the copy, that, in running and folding, printers run pages in multiples of 4's, 8's, 12's, 16's and 32's. The 8, 16 and 32 page forms are the most economical number to run at one time. By changing the size of the form it is sometimes possible to come out in an even and standard number of pages, or it may be very economical to condense copy, either through changing the style of type or by eliminating some of the material.

In other cases where a form is running just below the standard number of pages, it may be advisable to print one or more blank pages. For example, to run 5000 copies of a form that is 28 pages, we must run a 16, 8 and 4. Using a printers' standard price schedule, it would cost \$44.70 for the 16 page, \$30.60 for the 8 page, and \$21.20 for the 4 page, or a total of \$96.50. This compares with a total of \$56.80 for the running of a 32 page form. The extra paper for these extra blank pages would cost only \$20 to \$30 in 60 lb. stock, so that it would be cheaper to run as a 32 page form and have the extra blank pages.

**Letterpress vs. offset.** There are other processes, but these are the two most used. It is well to evaluate which is better for a particular job. Offset printing has come forward fast in the past few years and is giving letterpress a great deal of competition. Many jobs can be done just as hand-

somely by the offset method and will be more economical. This is particularly true if reruns may be made with no type changes. As a general statement, letterpress would be used for 5000 copies and offset would be used for 50,000 copies. It is difficult to make any definite statement as to when letterpress or offset is more economical; even printers find it difficult to determine this. Often, if printers have both types of equipment, they will figure the job both ways. Offset, of course, is particularly advantageous for drawings, for cartoon type of material, or for obtaining a very soft effect in the publication. Reprint jobs, if there are few type changes and if the quantity is sufficient, usually lead themselves to the offset process.

**Paper.** The selection of the proper grade, color, weight and finish of paper is very important in determining both the quality and cost of the publication. The variety of sizes has already been mentioned. Paper can be obtained in many weights, the most popular being 50 lb., 60 lb., 70 lb., and 80 lb. weights. Also, it can be obtained in different qualities. Judgments must be made on each job as to whether changing the quality or weight of the paper improves or detracts from a job in comparison to the difference in cost. For a job such as a college yearbook the difference between a No. 1 and No. 2 enamel would not be noticed by the average reader and might save \$1000.

Lightweight papers can sometimes do an effective job at a savings. Workbooks that will be used only once can be printed on lightweight paper. In other cases, problems of opacity may make it desirable to obtain a more opaque or heavier weight paper so that there will be no show-through. Improving paper quality can be a cheap investment, as a small additional cost may greatly improve the appearance of the job. On the other hand, reducing weight or quality may give good savings and still produce a job adequate for the use intended.

**Cover stock.** Choices, too, must be made in regard to cover stock. Here it may sometimes be worth while to spend more as people first look at a cover, and good quality may cause them to be interested in examining the booklet. However, it must be remembered that to make covers a separate operation is more expensive. For purely informational material, it is more

desirable to use self-covers. Frequently, people will request special cover stock without realizing what they are adding to the cost even though it may serve no real purpose.

**Ink.** Ink should be a simple problem, but the use of more than one color on a job should be avoided if the second color does not add enough in the way of appearance to justify the extra cost. Many times simple jobs, such as one-use programs, are run in two or more colors; this is unwarranted for the purpose. Actually, changing the basic color of the ink on the paper stock can achieve the same effect without involving two press runs. The use of colored ink on white or colored stock can achieve a livelier effect. Many two-color jobs on white stock could be just as effective and much cheaper if brown ink were used on light green stock or blue ink on ivory, green or tan. For example, two colors, in close registration with bleed cuts, would increase the cost of 10,000 copies of a 32 page, 6 by 9 booklet for press work only, from \$91 to \$130.

**Size and style of type.** Selection of type styles and sizes can assist in making a publication more readable and, at the same time, can condense the material and keep it within a certain number of pages. The name of the type, the size, and the leading must be specified. Indiscriminate mixing of type styles on the same page can increase costs beyond the effect that is gained. Composition costs can range from \$1.63/M ems for the simple use of styles and sizes on a page to \$2.84/M ems for the use of complex arrangements of styles and sizes of type. A study of a number of publications would show many more complex composition arrangements than the publication justifies.

#### PRINTER CAN HOLD TYPE

Savings can be realized by making arrangements for the printer to hold type for a given period of time after a job is printed. Sometimes a period of 60 days on a brochure will show what the demand is and whether there will be a need for additional copies.

For other jobs, such as a general catalogue, it is common practice to hold type standing from one year to the next. If the changes are at a minimum, the job can be run again with only minor type changes. The cost for holding the type may run as high as a third of the typesetting charge. Generally, if it is possible to

use three-fourths or more of the original type, it will be economical to make the changes. When it is necessary to reset from 40 to 60 per cent of the type, printers find it more economical to set new type rather than to try to rework the old type. After several reruns of type it will be necessary to reset the entire job, as the difference will become obvious between new type inserted and the original type.

**Art work and halftones.** Instructions must be given for any art work that is to be done, halftones that are to be made, or delivered, to the printer. A good standing rule with any printer is to make the printer responsible for good quality reproduction of halftones. Specify that if a used or worn halftone cannot be used satisfactorily it is the printer's responsibility to notify you in order that a new halftone can be prepared.

#### STRIKING EFFECTS WITH ONE PLATE

According to the standard scale for photo-engravings, zinc halftones finer than 100 lines may be charged for at the copper rate. This may run 50 per cent higher than the zinc rate. To make a 110 or 120 line zinc costs the engraver no more and should cost the customer no more. More and more engravers admit this and are willing, when asked, to furnish fineline zincs at the lower zinc rate. Another suggestion is that striking duotone effects can be obtained with only one plate. On a campus snow scene, for example, the printer can run the original black plate through the press twice, shifting the plate one-half dot on the second run so that the dot pattern does not coincide. Use a dark blue or other color for the second run.

**Other instructions.** On perforations it is well, if possible, to use a printed perforation that can be done during the press operation rather than a sliced perforation done as a separate operation. Numbering instructions should be given and forms should be numbered only where required. The binding, padding and folding instructions must also be given to the printer.

Delivery instructions should advise the printer of the person and address where the material is to be delivered. They also should state that all cartons should weigh less than 50 lbs., so that they can be handled easily when the material arrives.

**Editors' alterations.** Those preparing copy must be reminded that they have the right to edit proof, but that they

should make up their minds as to what they want to say before the copy goes to the printer, not after they have galley proofs. Many staff workers do not seem to realize that editors' alterations must be paid for.

Once the printing specifications are prepared, the next step is the selection of the vendor. This may be done through an annual contract or by individual bidding by job. Printers specialize in certain qualities of work. Printers that can do very fine work as a rule do not do routine work economically. Printers who can do routine publications economically can give low prices on high quality publications, but they can never turn them out in the quality desired. Therefore, in purchasing printing one must consider, along with selecting the process, also the qualifications of the printer to do the type of work the particular job requires. Obtaining bids will keep the printers competitive and will show which shop has the most efficient methods for particular jobs.

#### SEEK PRINTER'S HELP

One should work closely with a good printer or printing salesman in forms work, brochure work, and general printing. A man who knows printing intimately can be very helpful in supplementing a buyer's knowledge as far as making suggestions for the preparation of copy, format, paper and type faces.

**Envelopes.** The purchasing of printed envelopes may not properly belong in the printing field but it is also an area in which savings can be made by having envelope factories both manufacture and print envelopes at one time in large quantities by combining orders from different departments. Standardization on the sizes of envelopes will result in more advantageous prices. In the purchasing of envelopes, because of quantity pricing breaks between the 5, 15, 20, 25, 50 and 100 thousand prices, certain quantities of approximately 19, 23, 45 thousand will be cheaper to buy in the next quantity break of 20, 25, and 50 rather than to buy the exact amount required. Either the total price will be the same or it may be cheaper to buy more and throw some away.

Purchasing of printing involves true value analysis in relating all factors so that the best looking publication for the use intended is obtained at the most reasonable price. #



# For Parents of New Students

*Brooklyn College has a public relations device  
of merit for students living in near-by urban areas.  
It's a special Sunday afternoon program for parents, few of  
whom are college graduates. In fact, 40 per cent  
of them never attended high school or completed the grades.*

## HERBERT STROUP

*Dean of Students, Brooklyn College, Brooklyn, N.Y.*

IN 1893, OSCAR WILDE WROTE IN HIS first act to *A Woman of No Importance*: "The youth of America is their oldest tradition. It has been going on now for 300 years." He forgot, of course, that this tradition is one only for the elders; youth has other concerns! Yet, it is widely known that parents are deeply interested in the education of their children, especially when their children attend college.

Brooklyn College, probably the largest liberal arts college in the country, has developed a special program for parents of new students. It is designed to acquaint them with the educational opportunities and facilities of the college and to make it possible for the parents to meet some of the members of the faculty and alumni. The special program was inaugurated on a Sunday afternoon in 1955, and operated successfully again in March 1956.

About 1500 qualified high school students entered the college of liberal arts and sciences of Brooklyn College last fall and approximately 500 in the spring. Students admitted to other schools and divisions of the college are not included in these figures, and the special program did not involve the parents of such students.

The fact of large entering classes at Brooklyn College raises several prob-

lems in its orientation of freshmen. This is especially true since the college seeks to individualize and personalize its educational offerings and activities so that students will genuinely feel that they are a profound concern of the college and not just another link in the chain of mass enrollments. The special program for parents was viewed as one means whereby the college could illustrate its active interest in its entering students.

### MOST LIVE IN NEW YORK CITY

The program for parents was based upon the further fact that the parents almost exclusively reside within New York City. Brooklyn College, as one of the four municipally supported colleges, is restricted with certain exceptions by Article 125, Section 6201, of the New York Education Law to "furnish the benefits of collegiate education . . . to citizens who are actual residents of the city. . . ." These parents were "available" physically by relatively quick transportation, either private or public.

The special program also was conceived and initiated out of the college's understanding that relatively few of the parents of its lower freshmen were college graduates themselves. One study involving "samplings of parents" showed that as high as 40 per cent has

either never been in school or had not gone beyond the elementary level.\* Although the parents resided in New York City with its manifold urban facilities, it could not easily be assumed that they understood deeply the nature of higher education. Therefore, it was deemed desirable to try to help them appreciate that to which their children would be giving their best efforts and the bulk of their waking hours.

Obviously, an additional purpose behind the special program was the hope that through gaining accurate information regarding the college and its program the parents might be able to help in maximizing the benefits of higher education to their children. Any success along this line also would assist the college itself in its educational efforts with its students. Yet, the special program was not viewed as an opportunity to threaten or scold parents.

A careful avoidance of "cookbook answers" to merely individual problems and opportunities was sought in the spirit of Henry David Thoreau, who said in *Walden*: "It is not worth while to go around the world to count the cats in Zanzibar."

\*Coulton, Thomas Evans: *A City College in Action: Struggle and Achievement at Brooklyn College: 1930-1955*, Harper & Bros., New York, 1955, p. 7.





Following the Sunday program, participants were invited to analyze the strengths and weaknesses of the program.

The parents of new students (these included transfer students) were invited to the Sunday afternoon program by a letter signed by the dean of students. The return of enclosed post cards indicated prior to the meeting that a sizable number of parents would be in attendance. Approximately 700 parents participated in the fall program and 150 in the spring.

The special program itself was divided into two parts. In the first, all of the parents assembled in one auditorium for a general program (general session).

The speaking part of the general session consisted of an introductory greeting by the dean of students with a recounting of the college's formally stated educational purposes as developed previously by a committee of the faculty and adopted by the college. Dr. Harry D. Gideonse, president of the college, then spoke, giving an exposition of the nature of liberal arts education and its function in the present cultural situation. This address was purposely framed in relatively "popular" terms and was attractively highlighted by many references to the practical concerns of parents of college attending children.

A second feature of the general session was the presentation of musical selections arranged under the auspices

of the department of music. A piano-violin duet was performed by two students and the college chorus sang two numbers. Then the officers of administration of the college of liberal arts and sciences were briefly introduced.

#### PARENTS REMAIN FOR DISCUSSION

The second part of the special program consisted of three meetings addressed to the educational and career offerings of the college (panel sessions). These panel sessions were organized along the traditional lines of arts, social science, and science. This division of labor was arrived at in large part because of the relative ease afforded for room arrangements, the desire not to "splinter" the parents into multifarious "sections," and the wish to present not only career information but to inform parents regarding the educational nature and function of a liberal arts institution. The general session ran for 45 minutes; the panel sessions were scheduled for an hour and a half, although many parents continued in discussion for as much as an additional 45 minutes.

Each of the panel sessions was chaired by a carefully selected faculty member. A "consultant" also was appointed to each panel who, as a faculty member, aided the chairman in pre-

senting information regarding the college and its educational offerings. Both the chairmen and the consultants did not "represent" their own special academic interests, but rather the general offerings of the college within their divisions. In addition to these two leaders, the panels featured alumni participants who spoke about their current careers and the contribution of the college to them.

On the arts panel there were alumni participants from the fields of speech therapy, journalism and languages; in the social sciences: social work, business, teaching and law; in science: medicine, research and home economics. Prior to the Sunday meetings the panelists discussed their responsibilities at a dinner meeting.

It was found that the parents attended the panels on the social sciences and the sciences in about equal numbers. Attendance at the arts panel was appreciably smaller. After brief introductory comments by the panelists, the parents were invited to ask questions. There was no lag in the questioning in any of the sessions and the questions ranged from the inane, unanswerable and highly personal query to those which fully tested the panelists in their understanding of the college and the career world. Opportunities were taken to suggest to individual parents that

## Student Deposits Need Not Be Costly

A. M. DEWEY

Purchasing Agent, Denison University, Granville, Ohio

IN A RECENT ISSUE, HARVEY Sherer, formerly business manager of Yankton College, wrote about the expense of student deposits which are held for various reasons.

The setup we have here at Denison is not expensive. In fact, we probably come out ahead if you want to consider the value of the working cash of several thousand dollars deposited. We require each applicant for admission to make two \$25 deposits. One is a room reservation deposit; the other is a registration deposit. These are collected by the admissions office, which forwards them to the controller's office with a card made out from a carbonized application fee receipt form.

These deposits are held by the controller until the student advises (within certain deadlines) that (1) he does not want a room for the following semester; (2) he will not register the following semester, or (3) lacking actual notification from the student, we deduce that it is the final semester of his college career, in which case the deposits are automatically applied to his last semester student bill.

Thus, we have no large expense in sending out refund checks each

year and in collecting again the following fall. We keep our addressing and mailing expense down this way, especially by crediting the amount on deposit to the bill.

Refund checks to those who are not reregistering or who do not want a room are mailed in the summer after all the bills are paid. If the amount due from the student is less than the deposit, we make the deduction and refund the balance of the deposit to the student.

We find that most students pay their bills regularly and that our loss from uncollected accounts is exceedingly small; in fact, they are infinitesimal.

Charges for damage to the rooms (found during room inspection after the student leaves in June), lost library books, and the like are billed, and we have little difficulty in collecting. On our tuition bills, of course, a deposit of \$25 or \$50 is not very much to apply. But, actually, we now collect a very large percentage of our bills in advance of registration.

For chemistry breakage, we issue a \$5 card against which the chemistry department makes charges. Any unexpended balance is refunded in accordance with the terms printed on the card. #

their children might further explore questions with appropriate counseling agencies of the college.

At the close of these sessions it was suggested to the parents that they might like to comment on the service-ability of the whole program. There was general and enthusiastic agreement that the special program for parents of new students was successful.

Following the fall program a questionnaire was formulated (carried and returned by freshman students) to inquire of the parents regarding possible changes for the future presentations of the special program. Also, the

faculty participants and others twice were invited to analyze the strengths and weaknesses of the program in a group meeting.

### CONSTRUCTIVE SUGGESTIONS

The following are some of the constructive suggestions made: (1) The program might be held at the same time and in conjunction with the freshman orientation program. (2) The panels were perhaps too large. (3) The panel audiences were perhaps too large. (4) The program may have been too long. (5) Demonstration of science and arts laboratories might be

advisable. (6) An informal meeting of faculty and parents over tea might have been helpful. (7) Some panelists were more helpful than others. (8) Certain subjects, such as history, psychology, health and physical education, are not clearly aligned in a divisional-panel arrangement. (9) Perhaps a series of problem themes should be employed for the panel sessions.

A helpful device in connection with the special program was three information booths. Carefully selected counselors were posted in these booths, and provided with appropriate literature to answer the more personal and individual questions of the parents. The booths were open prior to the general session at the time of transition from the general session to the panel sessions and following the panel sessions. The three counselors also had opportunities to inquire from the parents regarding the effectiveness of the special program and were generally encouraged by parents' reports.

The employment of alumni in the program also was deemed valuable in at least three ways: (1) It provided the parents with an opportunity to see before their eyes the kind of "product" that the college was engaged in developing; (2) the use of alumni members enabled the college to tie them rather directly to a significant educational program of the college; (3) it helped the faculty to relate the educational offerings of its divisions to the practical activities of its graduates.

Thus, although the special program for parents of new students stands in need of modifications in the light of its operations, it does seem to have afforded the college with a useful educational instrument.

The college continued the program at the end of October 1957. More care was given to the "briefing" of the panel chairmen as well as the panels themselves. It was realized through the previous experience that the panelists require more "indoctrination" in order that they may act effectively. Also, this fall the entire faculty was invited through the *Staff Bulletin* to attend the program. While only a few actually attended, as was expected, the acceptances in some instances came as surprises.

Probably modifications will have to be made each time the program is offered, but essentially the concept behind the program appears to be sound and, to an extent, successful. #

A UNIVERSITY'S GREATNESS IS JUDGED by the caliber of its faculty, but can a faculty subsist by itself? No! The faculty, in its work with students, needs to be backed up by, supported by, and served by administrators, technicians, buildings and grounds personnel, residential halls employees, and others. Nor can the faculty, the student body, or the nonacademic employees fulfill their duties unless the other two areas carry but their own functions.

In most institutions the faculty is represented by the deans and the student body by the student council and other campus leaders. But who is responsible for the administration of the affairs of the nonacademic employee? Whether we realize it or not, some one person or several people are carrying out this personnel function.

Many small, medium and even large colleges and universities have no personnel departments. This does not mean that no one is carrying out the personnel function; it means that many persons and possibly every department head is in the personnel business.

When everybody gets into the act, there are as many personnel policies and as many inconsistencies as there are departments and people. This not only makes for discontent but also develops fertile ground for union organization as employees from various departments compare notes with one another. More collective bargaining agreements have been signed because of discrimination and inequities than for any other reason. These alleged inequities and discriminations may be fact or fancy. Their source is resentment against alleged unfairness in the day-to-day handling of ordinary instances, including work rules and their changes, hiring and firing, layoffs and promotions, wage developments, fringe benefits, and the adjustment of minor and major grievances.

No personnel program that does not recognize that both administration and employee have specific areas of responsibility can be successful. The expression, "An honest day's pay for an honest day's work," does not reflect modern thinking, practices and needs. The increase of socialized practices in the area of fringe benefits makes the employer virtually responsible for the

From a paper presented before the Eastern Division of the College and University Personnel Association, New Brunswick, N.J., 1957.

Why

When

What of

## ***Personnel Administration***

**DIEDRICH K. WILLERS**

*Personnel Director, Cornell University, Ithaca, N.Y.*

employees' welfare from sperm to worm. Today many employees are as interested in the fringe benefits and psychic income values as they are in salary, and many just assume that all enlightened employers provide good working conditions with fair and consistent treatment for all employees.

In my mind the successful operation of a personnel department and the handling of the personnel function are dependent upon the confidence and the awareness that the top staff member has in his personnel director and the equal confidence that the personnel director *must* have in the administrative officer to whom he reports. Continued confidence is necessary in order to establish and administer any sound personnel policy. This single condition and this relationship are more important than any other group of factors.

Many top administrators working with the budget director believe that personnel service is a giveaway program. Personnel directors, particularly in unorganized areas, are always in the middle. Budget officers feel that personnel directors are fighting for too much, and employees feel that they have not accomplished enough.

Whoever is responsible for administering the personnel function must know what is going on on campus, must know what is going on in top administration, and must be able to analyze the specific needs and desires of employees in order to administer the program adequately. Top admin-

istration must realize that personnel and employee relations is a most sensitive area and one that can upset many other activities. Just the start of a rumor can create a waste of time, which is money; if it is allowed to continue unanswered, the rumor may create impossible relationships among the public, the student, and the faculty.

The personnel department should be consulted and informed of all openings for nonacademic personnel, including temporary help. It should be in a position to make recommendations and promotions from within and to handle the recruiting from without. A clear-cut promotional policy is now recognized as an essential part of any effective personnel control system. Employees are not satisfied with casual statements such as "There is always room at the top" and "If a man is any good, he'll get ahead." Today the employee demands evidence of a definite policy in this respect.

Every worker brings to his job a certain potentiality for growth. His value to the employer lies not only in what he is but also in what he may become. His effectiveness is more real if these capabilities are used to the utmost. Obviously, it is impossible in small academic departments, where the only supervisors are professors, to develop managerial skills. However, in the areas in which we have the most employees there are many nonacademic supervisors whose skills can be developed so that they, in turn, can de-



velop the greatest potentiality in the employes.

We have the problem of assisting the staff in administering a personnel program that can give the employe the incentive and security that he needs to do a good job. What specifics do we need to incorporate in a nonacademic personnel program to accomplish this?

Irrespective of the size of the institution, there should be a strong unified responsibility for personnel services. In a small school it may be a person who has many other responsibilities, but larger institutions need a full-time staff. The personnel function should include employment, fringe benefits, training, wage and salary administration, and safety.

Let's discuss these briefly.

The employment function should be responsible for the recruiting, testing, interviewing and referral of all nonacademic employes. This function also includes exit or terminal interviewing.

In order to provide proper security for an employe and his family, there is need of a sound employe benefit or fringe benefit program. This includes administration of a group life insurance program, major medical insurance, loss of income insurance, hospitalization insurance, workmen's compensation, retirement, free tuition for employes and their children, and promotion and coordinating of employes' recreational activities. In this area the personnel function most likely would be responsible for the benefits for academic as well as nonacademic employes.

#### REQUIRE STUDY AND REVIEW

None of these benefit programs is stagnant. They require constant study and review. Although we have had a group life insurance program at Cornell since the 1930's, I doubt if there has been a year in which we have not studied and discussed possible alternatives. A year ago, because of our experience, we were able to give a bonus of \$500 of group life insurance to every employe. Normally you would think this would be well received by most employes; however, many, particularly young women, would have preferred to have the premium cut even if it only meant about 30 cents a month to them. In the past few years we have made several wage adjustments which, we now think, throw our group insurance program out of proportion. Many of our lower paid em-

ployes are insured for too much; many top people are not insured for enough.

We have had major medical insurance for our professorial, administrative, professional and supervisory employes for three years. This program protects the family against excessive medical and hospital expense in the event of a catastrophic accident or illness. In two years, by constant study, we have been able to have the insurance company improve the policy in two or three ways at no additional cost. Our program now provides that the insurance company will pay 80 per cent of all medical and hospital bills over \$500 up to \$10,000.

One security program that we are interested in is the one announced by T.I.A.A. which will provide income for a totally and permanently disabled employe from the time of his disability until age 65 and at the same time waives the premium on his T.I.A.A. and C.R.E.F. retirement program until age 65. This provides for the retirement allowance that he would have had if he had continued to be employable. We could use a great deal of space on fringe benefits. It is an area in which there is need for continued study in order for it to be most effective.

Another field of interest in the personnel area is the training function. Most educational institutions do not have an adequate training program for supervisors nor do supervisors have adequate training programs for the employes under them.

The training function should start with a proper orientation plan for all new employes. This would be a formal meeting within the first week or 10 days of the new employe's career. The training function should include the establishment, development and maintenance of policy manuals for the assistance of the staff. A manual is not training in itself but it can be an effective, positive training aid.

Continuing programs for the training and development of nonacademic supervisors should be established. These persons need to feel that they not only serve a purpose and have a function but that they are really a part of the administrative organization of the university. To many employes they represent the university. Two years ago we came close to having a group of our employes organized by our own supervisors. We had failed to make it clear to these supervisors all their functions, responsibilities and

privileges. Since then our administrative, professional and supervisory personnel has been particularly recognized in the field of free tuition, major medical insurance, retirement, parking and other fringe benefits.

The wage and salary function of the personnel service includes establishing and operating a coordinated classification program for all nonacademic personnel. The important aspect of this is keeping it current once it has been established, reviewing and classifying new positions, and reviewing the job content of positions as they become vacant. Almost every job changes in its complexity, depending upon the attributes of the incumbent. It is easy to see that we cannot consider the individual when rating a job, but as people change, so does the job, and it behooves the personnel department to keep pace with these changes.

#### CORNELL'S SAFETY PROGRAM

At Cornell we have an extensive but not elaborate safety program. Its primary function is to provide safe and secure areas of work, play and housing for our employes, staff and students. We have our own police department established by the laws of the state of New York and deputized by the sheriff of our county. We have the authority to establish our own traffic rules and regulations, which we enforce with our own police force. We have more than a hundred of our own police at football games and at other major public events on campus. We do extensive work in fire inspection of all university buildings, as well as of fraternities, sororities and off-campus housing.

Our industrial safety engineer continually works with all on the campus. First, he established methods for the prevention of accidents. He investigates accidents. He assists in the administration of our workmen's compensation.

We might ask ourselves: Why do we have these programs? Is it just a case of keeping up with the Joneses, or is it because we are interested in the welfare of our people? The keystone of any organization is the development and maintenance of sound employe relations, and we are aware of the somewhat inverted golden rule: "Management gets the kind of labor relations and organizational effectiveness it deserved."\* #

\*McGregor, Douglas: The Changing Role of Management, M.I.T. Technology Review.



THE BUSINESS MANAGEMENT SERVICE of a state university raised a question with the institution's auditors in regard to the small cash purchases that it often found necessary to make. This service bureau had been established as a part of the college of business administration to help businessmen throughout the state with management problems, particularly those of small businessmen.

The bureau, in dealing with its needs for purchases too small in amount to process by central office procurement and too quickly required to channel through noncash procedures, resorted to the only other immediately available recourse of making the purchases from personal funds, such purchases to be reimbursed later through a properly approved voucher supported by attached receipts. To have made the purchases from cash receipts from the sale of bulletins published by the business-management service would have violated the control principle of keeping all cash receipts intact—also, in cash-basis accounting, the additional control feature of cash deposits and/or income equaling cash receipts would not result.

The business management service, desiring to correct any inefficiency that might exist in the handling of small cash purchases, asked the auditors to look into its requirement for a petty cash fund. The auditors agreed to do this by playing the rôle of third party, this time between the university administration and the bureau.

Whereas the auditors had no need to use directly an audit program for petty cash to enable them to decide whether or not to recommend a fund, they could draw from such a program many useful technics in their pre-investigation for fund establishment. Following is an audit program for petty cash fund kept on an imprest basis:

The audit steps were as follows:

1. Ascertain the authority for the fund. Verify that the name and office address of the authorized custodian of the fund are the same as that of the actual custodian of the fund.
2. Count the fund without advance notice to the custodian. Determine if the receipts and/or sales tickets or invoices on hand plus the cash on hand equal the authorized amount of the fund. Also take into account any reimbursement in process.
3. List any cash overage or shortage and determine the reasons therefor.
4. List and analyze the petty cash

expenditures, the non-reimbursed and those reimbursed by vouchers which would make the scope of examination approximately six months, ending with the date of the fund count.

5. Investigate unusual items, *i.e.* large purchases, two or more receipts collectively representing one purchase, I.O.U.'s, bank drafts, uses of account other than those authorized.

6. Review the departmental procedures in the operation of the fund and in the safekeeping of it.

7. Raise procedural departures to standard practices. After adequate verification, see that an overage is returned to the bursar's fund and that a shortage (assuming that the custodian is personally liable) is made up by the custodian from his personal funds.

In connection with the analysis of expenditures in Step 4, note patterns of fund activity, size and nature of purchases, outside purchases that could have been supplied by university or college storerooms, frequency of replenishing fund, and cash overages or shortages.

The auditors drew heavily upon Step 4 in making their decision as to whether or not to recommend a petty cash fund for the business management service. First, the small cash purchases of the bureau for a period of six months were listed and classified by nature of item from the business office copies of vouchers submitted by the bureau for reimbursement of expenditures from personal funds.

Step 5 of the audit program was drawn upon in part; the bureau was interviewed about proposed uses of the account. In addition to the use of small cash purchases, the bureau stated that it occasionally had the needs of paying for postage-due charges and of making change for the sale of a bulletin

to someone coming to its office. A postage-due charge is a customary petty cash item; and whereas a change fund must not be used as a petty cash fund, the latter, to a reasonable extent, may be used as a change fund.

The auditors, having found that the past small purchases of the bureau were typical petty cash items and that the time pattern of these purchases not only warranted a fund but one of a \$20 size, recommended such a fund. Then the business management service, with the approval of its college, filled in the necessary form to obtain a permanent petty cash advance from the bursar's fund. This advance is renewable at the end of each calendar year in order to keep the conditions for the advance current and under control. The end of the fiscal year is not chosen for renewing an advance because of the pressure of other business at that time.

Finally, the auditors supplied a petty cash procedural sheet to the service bureau as well as standard university receipts to be used in those cases where vendors normally do not furnish sales tickets or invoices as, for instance, taxicab service or dime store purchases.

The progressive idea of the auditors aiding administration as exemplified by the foregoing experience is used by the author in an article that discusses the basic reasons for colleges and universities establishing an internal auditing course or curriculum separate from the course or curriculum designed for external auditors.\* The internal auditing function is at its best when operating as a service to management rather than as a "checking" of or for management. The latter is negative; the former is positive. #

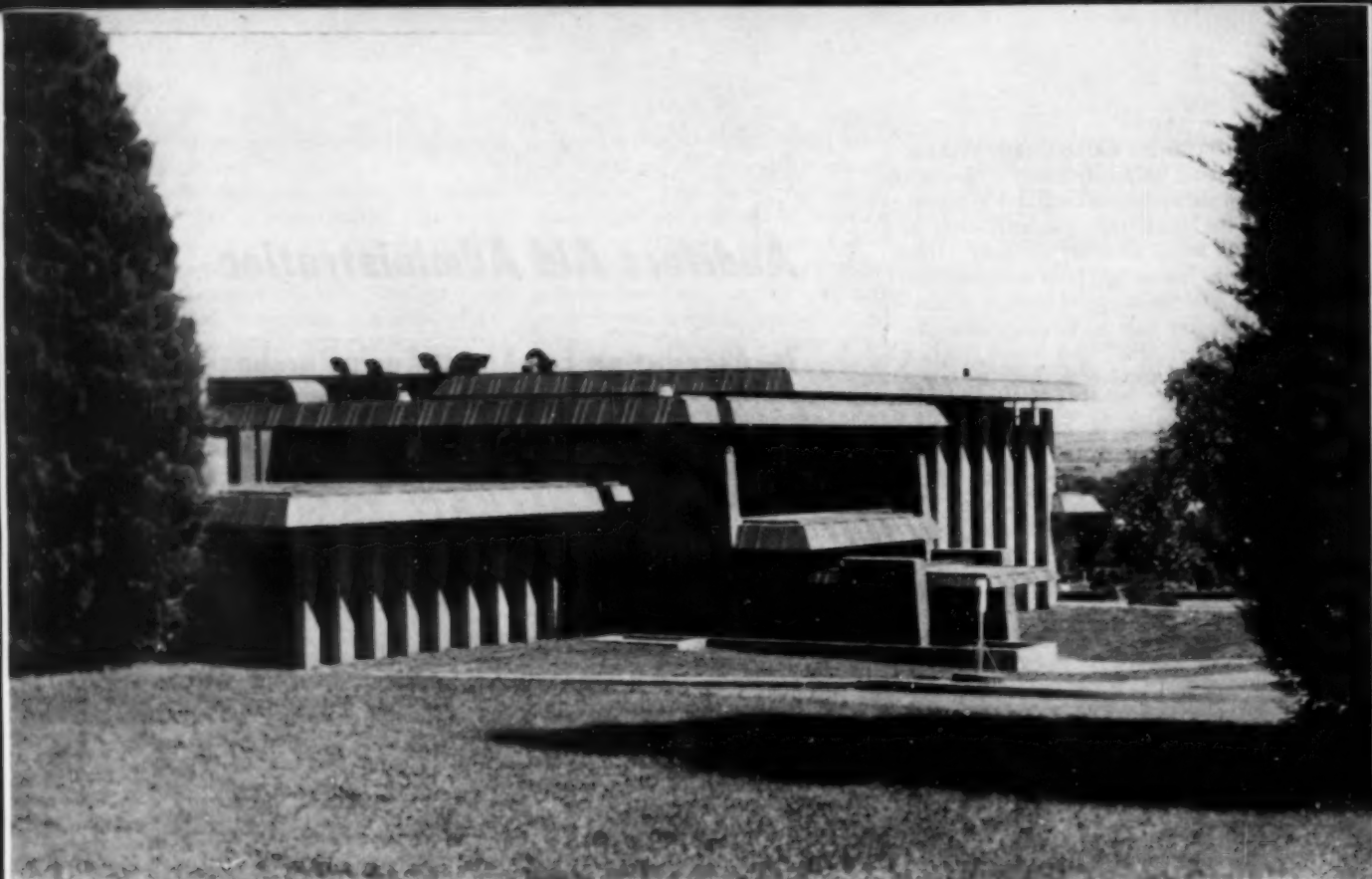
\*Marien, A. E.: College Courses in Internal Auditing, *Collegiate News and Views*, October 1956, p. 7.

## Auditors Aid Administration

### 7—Accounting for Small Cash Purchases

A. E. MARIEN

Internal Auditing Division  
University of Illinois



Above: Southwestern State College's Memorial Student Center. The wide overhang above windows and the saw-tooth arrangement of the west walls prevent the direct sun rays from entering the building. Left: Frame army surplus building used as recreational center before the new student center was completed.

## ***Student Center at Small Prairie College***

***becomes show place of Western Oklahoma***

**WALTER CROUCH**

*Public Relations Director, Southwestern State College, Weatherford, Okla.*

IN OKLAHOMA'S SEMICENTENNIAL year of statehood, a new college building situated on the campus of Southwestern State College, Weatherford, 75 miles west of Oklahoma City, is symbolic of the development of a great commonwealth "from tepees to atoms." Ultramodern in design and function, the Memorial Student Center is a show place of western Oklahoma, an archi-

tectural achievement that has changed the pattern of life at a small prairie college.

Southwestern State College is four years older than Oklahoma. Established by the territorial legislature of 1901, it did not begin operations until 1903. First classes met in vacant frame buildings in downtown Weatherford. It was not uncommon for early day profes-

sors to conduct lessons in literature to the accompaniment of drunken ribaldry from a saloon on the other side of a wooden partition.

The physical plant developed rapidly after that first year, but it was not until 1947 that any kind of recreational center for students materialized. This was a frame army surplus building, originally an officers' club.

The present Memorial Student Center was completed during the summer of 1956 at a cost of \$650,000 and was dedicated to the memory of the college war dead. Overnight there was a marked change in the tempo of student social life. Too, the Center became a mecca for off-campus groups, with a solid booking of conventions, banquets, dances and meetings for citizenry of western Oklahoma.

The architects, Ivan Reynolds and Ross Morrison of Oklahoma City, spent months visiting 26 student centers in several states, gathering information that was to prove valuable in planning and constructing the building.

The Memorial Student Center is conveniently accessible to academic buildings and residence halls. Because of this, the architects made all elevations equally attractive and took special care to provide the same finish and material for all exposures. A con-

crete retaining wall and large masonry pylon hide the service entrance and dock at the rear. Exterior entrances on all sides allow maximum circulation.

The basic construction features are a reinforced concrete foundation, walls and joists up to the first floor. Above that point, structural steel columns, beams and steel joists are used. Second floor slabs are concrete poured over a lightweight permanent steel base; the roof is steel deck.

On all roof areas above windows are wide overhangs; and a saw-tooth arrangement of the west walls of the cafeteria and lounge prevent the direct sun rays from entering the building. These are important features because the building is completely air-conditioned.

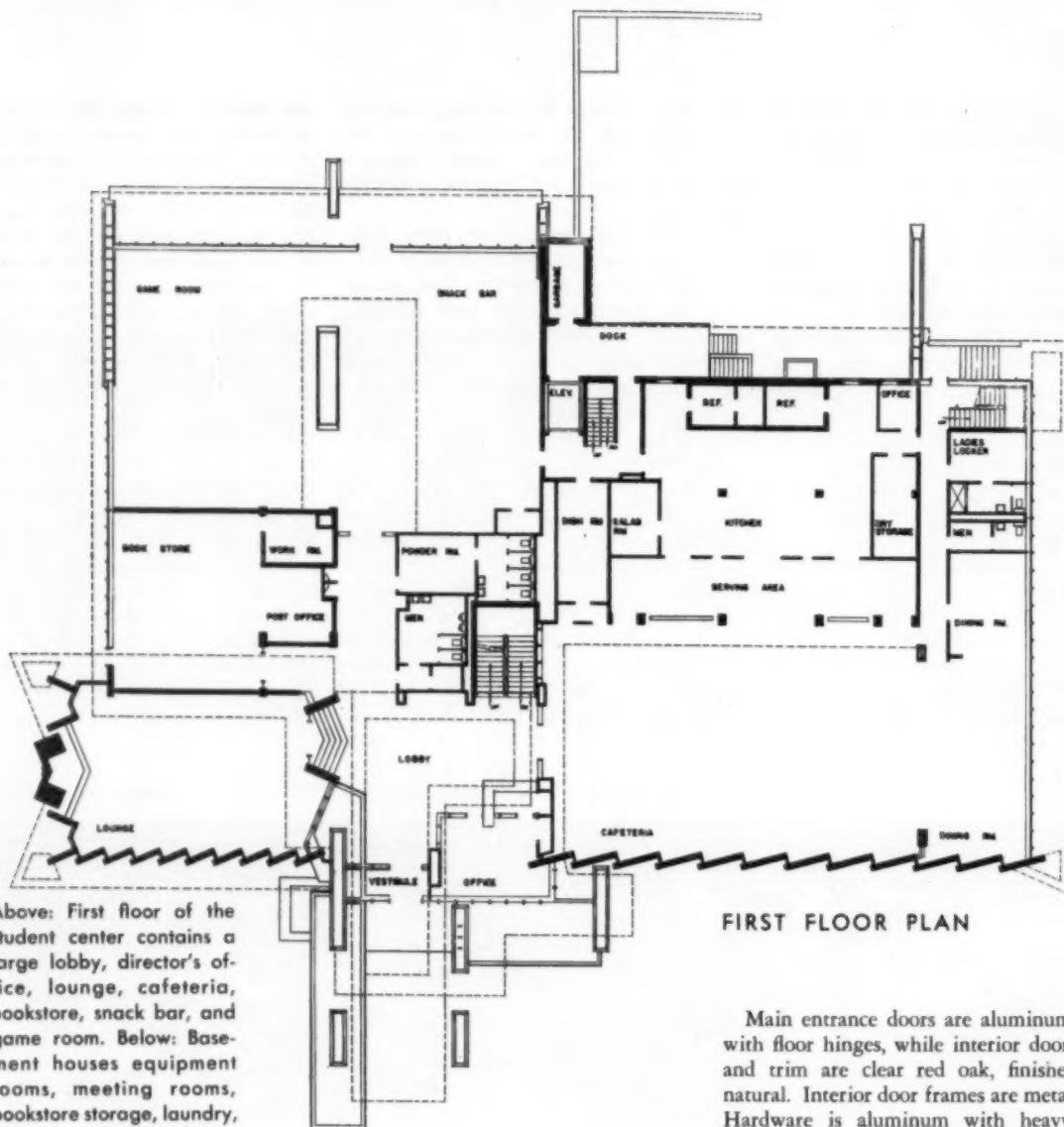
Another expense saving feature is the use of a light window wall unit with steel insulated panel sections and a 4 by 1 inch extended mullion cover.

This makes for a light, airy and colorful building and cuts the cost of foundations because of the omission of much heavy masonry on the south, east and north walls. Exterior canopies have been extended into the building in many places and are used to enclose air conditioning ducts and recessed lights. The vertical steel exterior window wall treatment also extends into the interior at lobbies and stairwells to give coordination and unity to the design.

Terrazzo floors have been used throughout, as well as marble wainscot in lobbies and corridors of first and second floors. Ceramic tile has been used for floors and wainscot of toilets and powder rooms, and ceramic tile wainscot and quarry tile floors in kitchen areas, service hall, and serving areas of the cafeteria. Floors in other areas are either vinyl-asbestos or vinyl, except in the basement storage and heating room areas. (Cont. on p. 36)

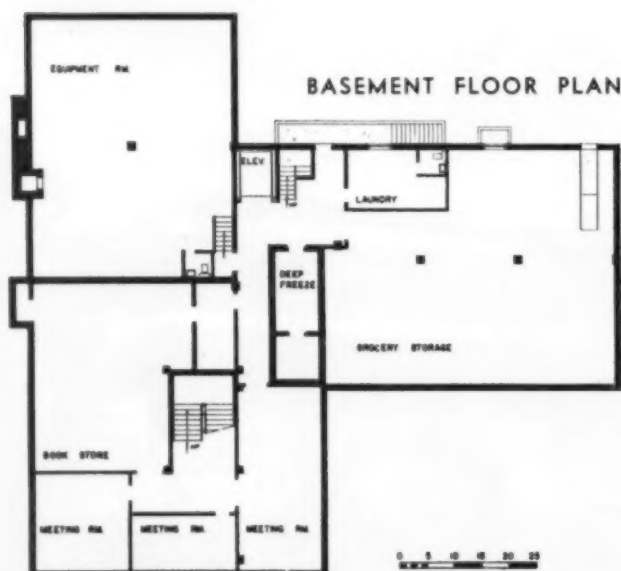
Much of the south, east and north walls of Southwestern's new student center is glass.





Above: First floor of the student center contains a large lobby, director's office, lounge, cafeteria, bookstore, snack bar, and game room. Below: Basement houses equipment rooms, meeting rooms, bookstore storage, laundry, storage space and freezer.

FIRST FLOOR PLAN



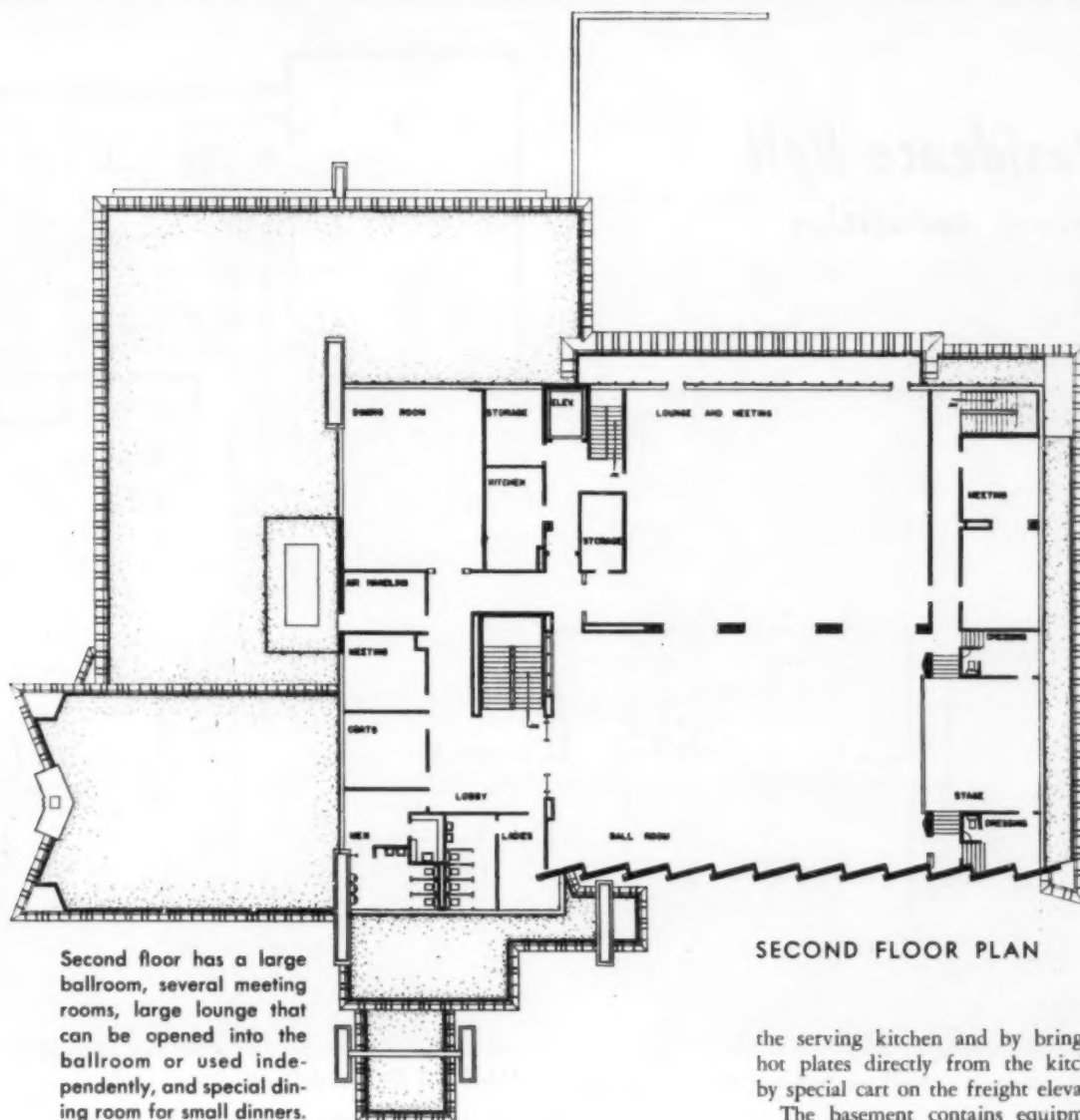
BASEMENT FLOOR PLAN

Main entrance doors are aluminum, with floor hinges, while interior doors and trim are clear red oak, finished natural. Interior door frames are metal. Hardware is aluminum with heavy-duty locks throughout.

A large hydraulic elevator serves all floors and opens onto the rear service dock. A dumb-waiter is provided for service between the bookstore and the basement storage room.

Ceilings are acoustical plaster, and walls, except for wood paneling in the ballroom and exposed face brick walls in several areas, are of lightweight plaster. The building is completely air conditioned and is heated from a central equipment room in the basement. The system used is chilled water and air-handling units to distribute the air to various zones. Some of the smaller areas have unit ventilators to provide individual control. Some wall convectors are used for additional heating under windows of large areas. Water piping is copper. Most of the ceiling light fixtures are of the recessed incandescent type. The final decision on plan arrange-





Second floor has a large ballroom, several meeting rooms, large lounge that can be opened into the ballroom or used independently, and special dining room for small dinners.

SECOND FLOOR PLAN

ment was dictated by funds available, most flexible use for all student requirements, and the possibility of using the second floor for special events, such as conventions of outside groups, without limiting the use of the building by the students.

The first floor contains a large lobby with a trophy case, bulletin boards, an information desk, telephone booths, the director's office, public toilets, a large lounge, a cafeteria, a bookstore, a snack bar, and a game room, all directly accessible from the lobby as well as from the main stairway. A compact but efficient kitchen and serving area are adjacent to the cafeteria, which includes a dishwashing area, a salad room, walk-in coolers, the dietitian's office, and a storage room.

A double service line provides fast serving facilities for the cafeteria at

the peak load periods. Large and small dining areas adjacent to the cafeteria at the south end can be separated by plastic folding doors into private dining rooms for special dinners or meetings. Toilet and shower facilities for cafeteria employees also are provided on this floor.

The second floor provides a large ballroom with stage dressing rooms and toilets, public toilets and powder rooms, a checkroom that also can be used as a meeting room, several meeting rooms with cabinets for storage of records of organizations, a large lounge that can be opened into the ballroom or used independently if occasion demands, a special dining room for small dinners and meetings, a service kitchen, and storage rooms. Banquets can be served in either the ballroom or large lounge, by use of

the serving kitchen and by bringing hot plates directly from the kitchen by special cart on the freight elevator.

The basement contains equipment rooms, three meeting rooms, large bookstore storage, a large freezer for storage of frozen foods, a toilet, a laundry room, and space for kitchen dry storage. An unusual feature, which eliminates odors, is a refrigerated garbage room off a large rear service dock.

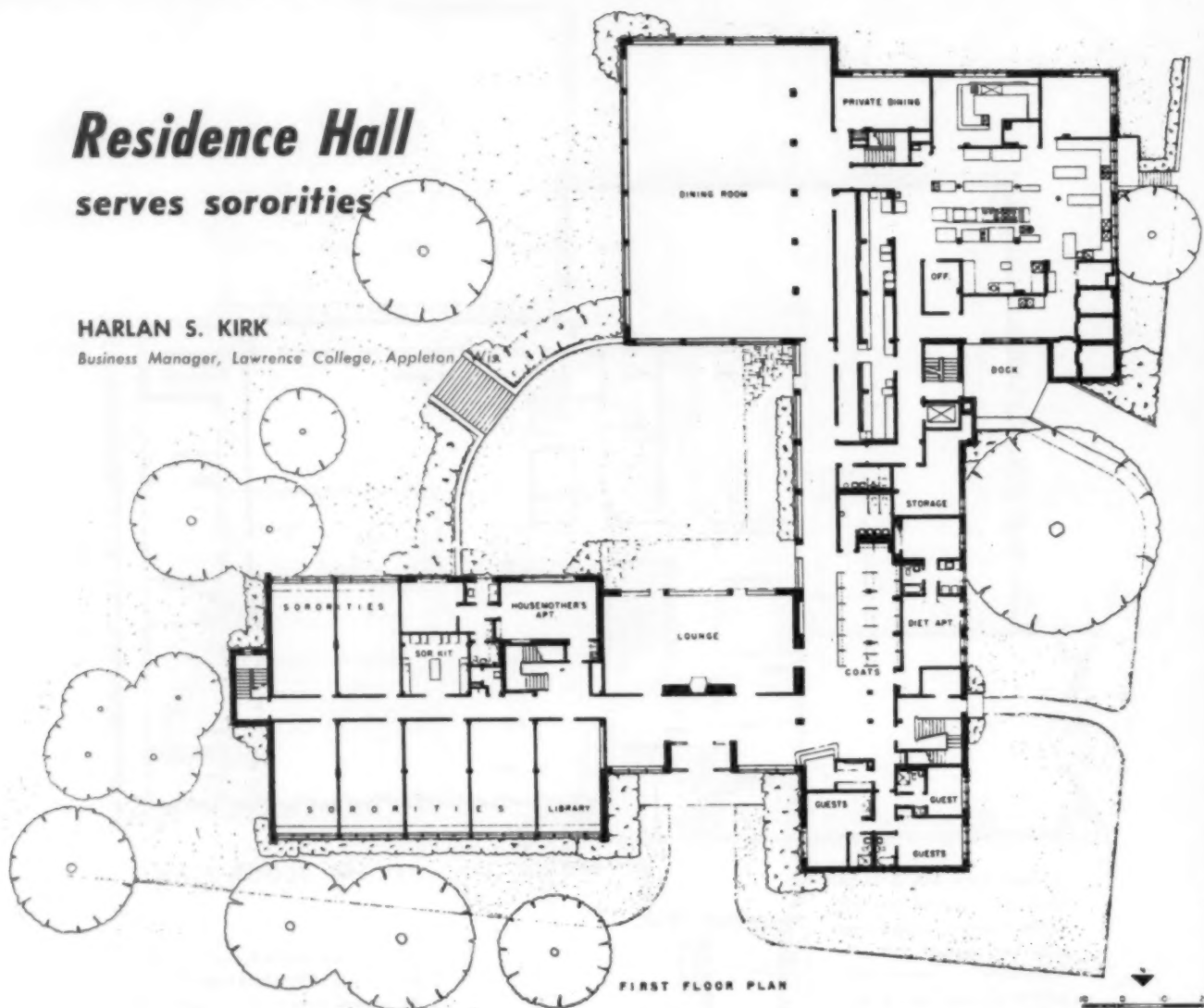
Southwestern State College is a coeducational school with a current enrollment of 1537 students. Most of the students come from families of moderate means, largely from agricultural areas and small towns. The impact of the new building has had a marked effect on their social and cultural development.

The center is financed by self-liquidating bonds, with no allocation of state money. During the first months of operation, income from the cafeteria, bookstore, snack bar, game room, conventions, banquets and special events far exceeded the funds required to meet bond payments. #

# Residence Hall serves sororities

**HARLAN S. KIRK**

*Business Manager, Lawrence College, Appleton, Wis.*



One of the six sorority living rooms in a wing of Colman Hall.

A WOMEN'S RESIDENCE HALL, OPENED in the fall of last year at Lawrence College, Appleton, Wis., provides rooms for 135 girls, dining space for 240 girls, and living rooms for six sororities. The sorority living rooms are located in one wing of the building adjacent to the main lobby. Each of these national women's groups has furnished its rooms to suit its particular taste and individuality.

Lucinda Darling Colman Hall, the new Lawrence dormitory (named for the first woman graduate), is located on a hillside overlooking the Fox River and takes maximum advantage of the river view. The dining room, seating 240 girls normally and 300 for banquets, has windows on three sides, two sides of which overlook the river.

The various roof levels contribute to an interesting exterior appearance as do also the Lannon stone walls fea-





Colman Hall, with tennis courts below, as seen from the river bank in Appleton, Wis.

Sunlight floods the long corridor leading to the dining room.



tured in certain parts of the building. The majority of the walls of brick are soft brown, beige and buff colors. Considerable glass is used, particularly on the river side. Each student room features a large window with metal sash, two parts of which are stationary and two parts open for ventilation. The river side of the lounge is virtually all glass.

There are two floors of student bedrooms in the wing above the sorority suites and three floors of bedrooms in the other wing of the building. All but 18 of these rooms are doubles, size 12 by 16 feet. Each student room has a lavatory surrounded by impervious plastic counter space, with a mirror and light above and a cupboard below. The lavatory is located behind the door when it is open. On the other side of the door, along the corridor wall, are wardrobes, 2 by

4 feet, for each occupant. Above these are storage cupboards. The wardrobes have wooden slatted doors.

The walls of the student rooms and hallways are concrete block painted in attractive and harmonious colors. Ceilings are acoustical tile; floors are asphalt tile. On either side of the drapery covered windows are two sets of adjustable shelves, and each side wall has cork and metal strips for hanging bulletin boards and pictures. Hollywood beds are equipped with foam rubber mattresses on box springs. Each girl has a small chest of drawers and a good size desk with study lamp. Two study chairs and one upholstered lounge chair complete the furniture in each double room.

In each wing of each floor of student rooms is a small lounge which may be used for reading, typing or group sessions. Adjacent but not opening into each of these rooms is a small kitchenette. On the second floor above the dining room is a sun deck.

Sororities at Lawrence use lounges in the women's dormitories and the Memorial Union for parties and dances, and in this new building they also have available the main lounge and a recreation room. Adjacent to their living rooms is a kitchen equipped with cupboards for each group, as well as refrigerators, stoves and sinks. Large individual closets in the basement provide for storage of ritual paraphernalia and other supplies. Built-in window seats in the living rooms also contain storage space for folding chairs.

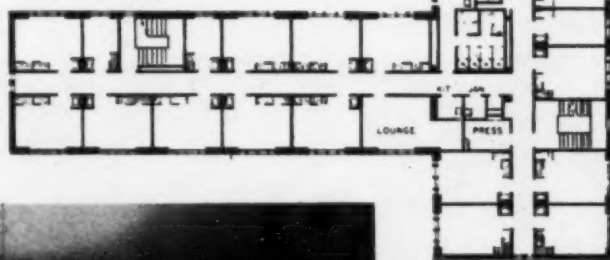
The reception desk located in the lobby near the front entrance serves as a control point for the building. The lobby has comfortable chairs, and the adjacent main lounge has contemporary furniture and hand woven Indian carpeting, as well as a fireplace. Large



Above: Typical double room in Colman Hall. Everything is furnished but the bedspreads.

Right: Second and third floor plan of Lawrence's new residence hall for women with rooms for 135 residents. All but 18 of the rooms are doubles. Below: The dining room accommodates from 240 to 300 guests.

## SECOND AND THIRD FLOOR PLAN







windows look out on an attractive terrace. The housemother's apartment is just off the lobby in the sorority wing; also off the lobby are three guest rooms, each provided with a private bathroom.

The dining room has attractive lighting, modern upholstered chairs, and music from recordings as well as from

Above and Below: Two more sorority living rooms. Each of the six national women's groups furnished its rooms to suit its particular taste and individuality.



Lawrence's FM station. On the way to the dining room sufficient space is provided not only for students to hang coats and to deposit books on the way from classes, but also for the coats and hats of guests attending banquets and dinners. A private dining room overlooks the river.

A serving room separates the dining room from the spacious kitchen with its stainless metal equipment and large built-in refrigerators. The glass enclosed dietitian's office is located between the kitchen and the receiving entrance. The head dietitian, also responsible for the housekeeping in the building, has an apartment near by on this floor.

Because of the hillside location, the rear of the basement floor is above ground and allows for a custodian's apartment and attractive locker rooms and restrooms for the staff. Food storage rooms are on this floor, with an elevator located near the receiving entrance to transport food and supplies. The elevator extends from fourth floor to basement and is used by students wishing to make use of the laundry facilities and the trunks and luggage storage rooms. A basement room also is provided for the storage of formals which, with full skirts, take up too much room in the bedroom wardrobes.

This residence hall, with its many unusual features, cost \$965,000, including furnishings, kitchen equipment, architect's and engineer's fees, and utility and steam lines from the college's central plant. The total cost per cubic foot is \$1.22, including kitchen equipment and architectural and engineering fees. Furnishings are not included in the cubic figure.

Considerable care was taken in designing and planning the building to make it attractive. Located on a picturesque but difficult site, it is comfortable within as well as functional. A minimum of maintenance can be expected. Windows, for example, with marble sills can be washed from the inside; the steel sash will require a minimum of painting. The roof, without either built-in or hanging gutters, is of a type best suited for winter conditions in this part of the country.

Frank C. Shattuck, president of Frank C. Shattuck Associates, Inc., of Neenah, Wis., architects for the building, says: "A building is not an edifice that meets the eye; it is an envelope for the life that goes on within it, a physical expression of the program of activity which it houses."

# Board and Room Accounts

**can be collected more easily  
through use of office machines**

## ROBERT NEWTON

Chief Accountant and Finance Officer for Auxiliary & Service Enterprises  
Ball State Teachers College, Muncie, Ind.

PRIOR TO MECHANIZING OUR REGISTRATION procedure at Ball State Teachers College last year, the records for board and room in the residence halls were hand-posted from lists furnished the business office by the directors of men's and women's activities. From these lists the name of each student was set up on a 5 by 8 inch card. When the student came to the cashier's window in the business office to make payment for board and room, it was necessary for the cashier to write a receipt in triplicate, to give the original to the student, to file the first carbon copy for purposes of distributing the income and for internal control, and to use the second carbon copy as a part of the post-audit. All of this resulted in considerable work and poor control.

It was decided to use a punched card system for processing room and board and, since the advanced registration was being placed into effect by use of such equipment, it was much easier to adapt the room and board accounts receivable to the machine process as this was a by-product of the advanced registration process.

When a student completes his registration, which includes the payment of registration fees, an official registration card is produced by machine. This card contains the student's number, name, sex and class rank. This card is duplicated and sent to the business office where it is collated with the contract, which has been sent to the business office from the housing offices. This contract is a 3 by 5 inch card at present, but it is planned to use the standard size punched card in the future. When the contracts have been collated with

the master registration cards by student and halls, the master cards are returned to the machine where the name of the hall is gang-punched and interpreted on each master registration card and a duplicate of this card is made. The duplicate master registration cards are returned to the business office, where they are matched with the contract and placed in a small folder with a third cut tab. These folders are filed alphabetically, by halls.

When a student presents himself at the cashier's window to pay his room and board, the cashier asks the student his name and the name of the hall in which he is living. The cashier pulls one of the master cards from the proper folder and asks, "Do you wish to pay by the quarter?" instead of asking, "How do you wish to pay, by the quarter or by the period?" If the latter question is asked, the cashier has to enter into quite a long discussion as to when the quarter payments are due, when the period payments are due, how much the payment is by the quarter, how much the payment is by the period, and so forth. So by asking the former question most of the students will pay by the quarter and only three payments will have to be processed per year instead of nine.

After the method of payment is determined, the cashier pulls from prepunched cards, three, if payment is by quarter, nine, if payment is by the period. These prepunched cards include an amount for room, board, social activity fee, and telephone (for one of the halls). If payment is to be made by the period, three of the cards will have an amount for room, board, social activity fee, and telephone (for

one of the halls) prepunched in each of the cards, while in the other six (two for each of the other two period payments for each quarter) an amount for room and an amount for board are prepunched in each of the cards.

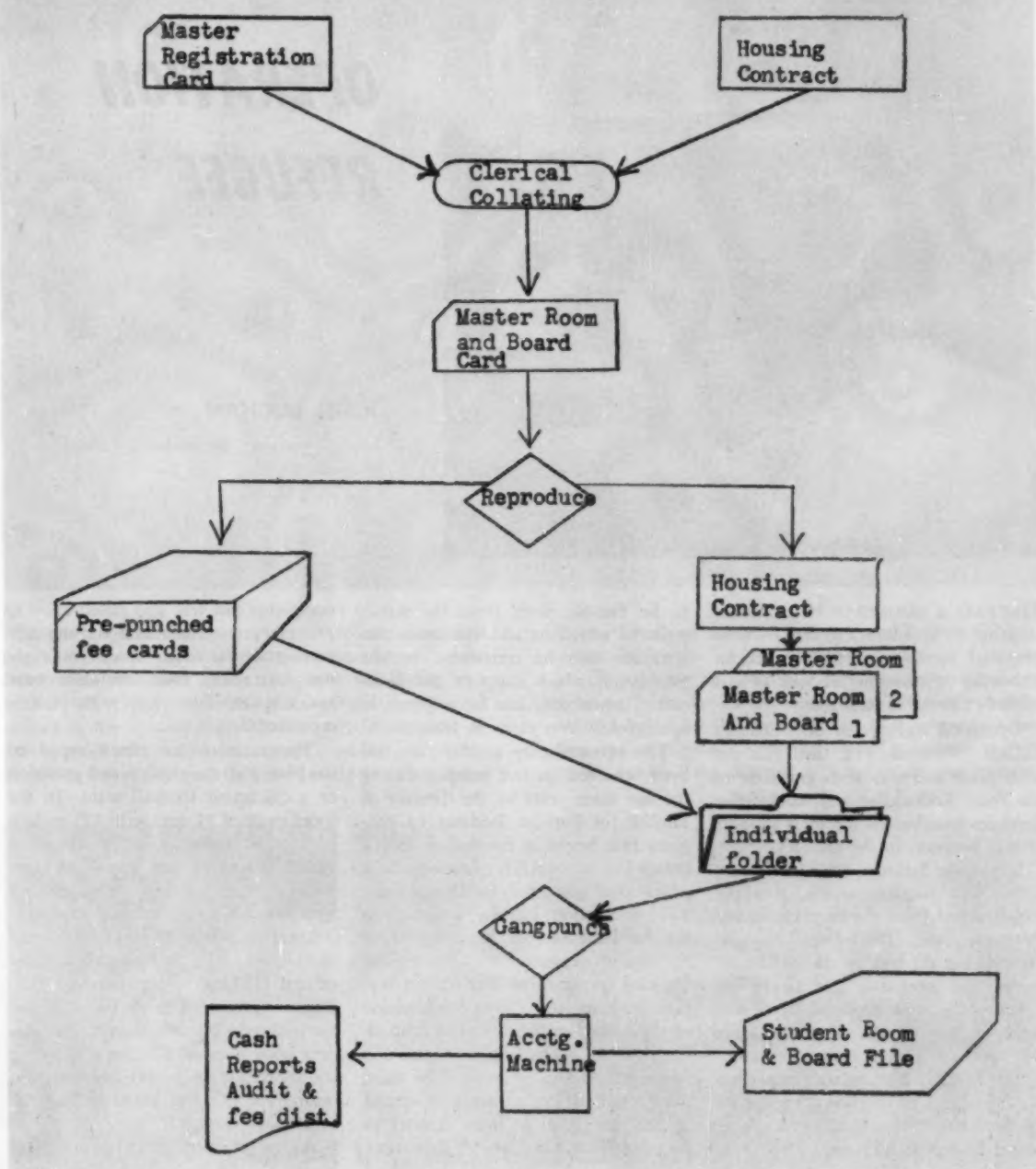
The master card is placed face down; the amount card is validated by machine with the date, the transaction number, and the code for the cashier, and is placed face down on top of the master card. After having machine-validated a stub type receipt with the date, the transaction number, the amount, and the code for the cashier, this receipt is also placed face down on top of the amount card. These three cards are then put face down in a desk file. The stub of the receipt is also validated by machine with the same information shown on the receipt and given to the student. At this time the student's room and board folder is reversed so the tab is on the opposite side. In this way it can be determined, by visual observance, the paid or unpaid accounts receivable in the room and board file.

The master cards, amount cards, and receipts are sent to a machine where the student's number, name, and name of the hall are punched and printed on the amount cards, and receipts. An audit list is run for each cashier at this time and this amount is verified with the bursar before the cash distribution is made. All receipts from all cashiers are merged and the cash reports are run from these cards. This report is the medium for posting to the general accounting ledgers.

When the master cards, amount cards, and receipts are returned to the business office, the master cards and amount cards are filed in the student's folder. Since the name and student number have been printed on each card, and the date and receipt number printed on the amount card, sufficient certification is in evidence that the amount due has been paid. The receipts are filed alphabetically for audit purposes.

At the end of the regular payment period, one of the master cards is pulled from each unpaid folder and sent to the machine, where a list is run for the unpaid accounts receivable, by halls. (Duplicate master cards are used so that at all times at least one master card is in the student's room and board folder.) These lists are distributed to the various offices concerned and are used for the follow-up on the accounts receivable for board

# FLOW CHART—ROOM AND BOARD BILLING AND COLLECTION



and room. The master cards are then refilled in the unpaid folders.

If a student withdraws from the hall, his entire folder is pulled and filed in a pending file until the account is paid or, if the account is paid in full, this folder is used as a basis for computing the refund. When the account is in balance, it is filed in a separate file. If a student moves into a hall after a term has started, the same

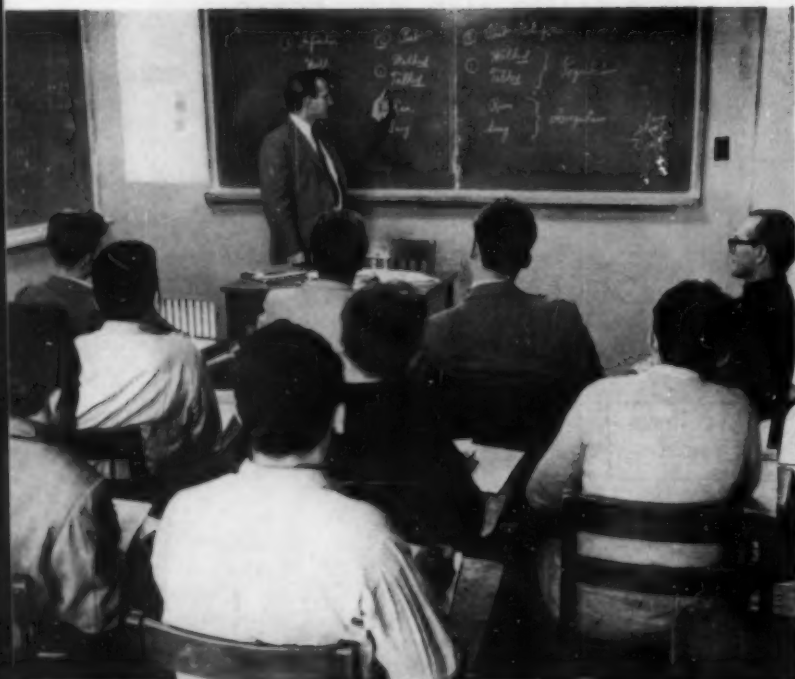
procedure is followed except that the first payment is mark-sensed on a receipt because of the irregular amount. In this case the information needed is punched directly in the receipt card by machine, and the master and amount cards are not used.

A control card is carried for each hall and at all times the total occupants in each hall can be determined. When students have paid in full by

the quarter, or after the student has made the third period payment, their folders are moved into a paid file, and this becomes the basis for the accounts receivable for room and board for the following quarter. Ball State enters into a yearly contract with the student for room and board.

#

Anyone desiring a set of the forms being used at Ball State can have it by writing to the author.



## OPERATION REFUGEE

**JOHN BUCHAN**

*Business Manager, St. Michael's College  
Winooski, Vt.*

THIS FALL A NUMBER OF HUNGARIAN students — Freedom Fighters — were prepared to benefit from American university scholarships because of last winter's Operation Refugee.

Operation Refugee at St. Michael's College, Winooski, Vt., still fills me with pride and also with gratitude to the Ford, Rockefeller and Rockefeller Brothers foundations for their support of this program in the colleges.

It was the Saturday after Christmas, 1956. The fragrant aroma of apple wood seeped from the fireplace in our Vermont home. The tranquil thought of applying ski wax to the old barrel staves and spending the next few hours on the snow slopes of Stowe was suddenly interrupted. The telephone bell sounded like a crack of thunder.

The friendly but insistent voice on the other end of the line was that of the president of St. Michael's College, Father Francis E. Moriarty. "John," he said, "this will not sound as if it were Christmas vacation. I have just received a telephone call from the International Institute of Education. They want us to present our program of English for 100 Hungarian university students." We were already handling 40 foreign students a semester in this program.

He continued: "The first group will arrive in two weeks. The college will have a representative in New York City Monday, the day before New Year's, for a conference. Our plan is

to be flexible, both from the standpoint of education and finance so that a choice may be considered by the foundation which supports the Institute. I am already late for a speech in Springfield. You carry on from here."

The extraordinary success that had been achieved on our campus during the last three years by the director of English for Foreign Students (a program that began in the fall of 1954) helped us to quickly develop three educational plans for the Hungarians: (1) orientation for the students on the fundamentals of basic words of the English language; (2) the regular 15 week program of English for foreign students, and (3) a combination of the second with additional time allotted for a college English course and voice training in phonics. The third plan required the students to attend St. Michael's College from January to August. This plan would give time for orientation in American democracy and have the Hungarians ready to benefit from the scholarships offered by the nation's colleges this fall.

Father Moriarty accepted our plans and placed the responsibility for the conference in New York on the dean of the college, accompanied by the director of foreign students. To the business manager fell the task of getting the facilities ready.

An old G.I. barracks, put in mothballs when a new residence hall was

completed last fall, was called upon to provide accommodations for the 100 new students, office space for eight new instructors, four new classrooms, and a speech laboratory with 30 new tape recorders.

The maintenance crews expedited the plan with the rhythm and precision of a champion football team. In the short space of 11 days with 175 gallons of paint, three temporary partitions, a speech laboratory, and a hundred extra man-hours for moving equipment, we were ready for the first students.

Local radio and TV stations entered the picture. The American Red Cross offered clothing; the citizens of Burlington responded with financial aid for necessary personal items. The student body planned a warm welcoming committee, waiting at Essex Junction station for the first Freedom Fighters to descend from the train.

A few minutes after their arrival in the dining room one of the new students had tears in his eyes. With the aid of an interpreter he was asked: "Don't you feel well?" He replied, "I am so happy."

Three months later, the Hungarians were able to tell us, without interpreters, how they felt. I still get a lift when I think of how St. Michael's College was able to participate in the program of introducing these brave newcomers to higher education in the United States. #





Above: Hungarian students as they took time out between classes to relax on the lawn. St. Michael's new Science Hall is shown in the rear, with the dining hall at the left. Fifteen different nationalities were represented in the student body. Below, left: A member of the St. Michael's maintenance staff unpacks one of the tape recorders so quickly commandeered as John

Buchan, business manager (center), and Eugene O'Neill, assistant director of the English for Foreign Students program, look on. Below, right: Hungarian students working in the language laboratory. These new booths were erected by the maintenance staff when facilities had to be tripled for the refugees. A master control booth enabled the director to listen in on any student.



# The life and work of a *College Building Consultant*

**JOHN H. BUTLER**

*Executive Dean, San Francisco State College*

CALIFORNIA STATE COLLEGES IN 1948 had a combined enrollment of 7018 students. The count in the fall of 1956 was 63,347. In eight years we have somehow managed to build new and adapt old facilities to house this fantastic increase of 56,329 regular and part-time students.

During these eight years, the state moved two of the 10 state colleges from old to new campuses; it created new campuses for four more colleges, and made tremendous expansions of the educational plant at all of the others. No other state has done so much to increase higher educational facilities for so many of its youth during a comparable period. And no other state has faced so many different building problems in such a short period of time.

## **STATE OF CONFUSION**

There was furious activity in the colleges and in the state department of education, but about all that resulted was confusion. Finally, with a mandate from the governor, State Director of Finance Dean called together the state director of education and the state architect. Something must be done, and done quickly, Mr. Dean is supposed to have said, or the state colleges would be by-passed.

Within days, things began to happen. The division of school planning in the state department of education was directed to supervise the state college building program. (The regular function of this office was to work with public school districts in planning elementary and high school buildings.) To carry its new burden, the director of finance authorized a new position, a specialist in college buildings. It

was not until many months later that the position was filled—and not by an expert in college buildings. A search of the entire country unearthed no such expert. There simply were none anywhere. The new appointee, Ruel Taylor, had to train himself.

In the meantime, a hastily called committee met at Sacramento. It was made up of state college presidents, deans, business managers, the associate state superintendent in charge of state colleges, and the director of the division of school planning. I was a member of that committee.

The committee completed its work in three days and made its report on Jan. 19, 1949. It never met again. From those three days and long nights of hard work has come, directly or indirectly, the basic concepts, procedures and other methods of attack that have eventuated in our present system of measuring needs, setting standards, and processing capital outlay projects.

It might be interesting to summarize a few of the difficulties that faced the committee when it met. There were no experts on college planning to consult. There were no standards, not even in such simple matters as the proper number of square feet per student station in a lecture room. We had no architects trained in planning college buildings. True, we had able men in the state division of architecture, but they could hardly specialize in college buildings when they had to spread their efforts over prisons, hospitals, fish hatcheries, shops, office buildings, and scores of other state projects.

We had no measures of need and, if we had, no formula for translating our needs into lecture rooms, laboratory rooms, faculty offices, library tables and stacks, cafeteria chairs and gas ranges, and the hundreds of other college necessities that must be embodied in white lines on blueprints. We had no

agreements among the state colleges that would prevent the aggressive from getting too much and the timid from getting too little. Our financing system was deplorable; we guessed how much a building would cost, got an appropriation, then had to cut ruthlessly and senselessly to fit the blueprints to the available funds. Fortunately for the taxpayers, when the appropriation was too large, which was seldom, the state department of finance prevented us from ordering gold doorknobs to use up our funds.

## **NO LONG-RANGE PRIORITY LIST**

We had no long-range priority list for the group of colleges as a whole, so that appropriations would be distributed among the various colleges according to the most pressing needs. We had no long-range priority list for each state college, one based upon carefully estimated needs, year by year. We had, in the state department of education, little in the way of policies on educational scope that could be used to prevent a college from asking for facilities for a curriculum never assigned to it, or to defend another institution's request for facilities for a long established course of study.

It was with the chaotic situation in 1948-49 that I started my work as building coordinator at San Francisco State College. At that time, only one other college had adopted this idea of making one person responsible for all planning. At all the others, planning was done by a busy president or by the Lord only knows how many deans, chairmen, and even entire departmental faculties.

The confusion, inefficiency and waste can be imagined. Department fought department to get what each thought it needed. The aggressive got too much and the modest too little. When a given department wasted money, the whole

From a paper presented at the fifth annual meeting of the Pacific Coast Association of Physical Plant Administrators of Colleges and Universities, San Francisco.



"First of all, I am a teacher."

college suffered. Individual fought individual. It was every department and administrator for himself and the devil take the hindmost.

On any matter concerning buildings, every state-level official found himself dealing with deans, chairmen and often faculty people on the same project. The poor architect finally assigned to a given project found himself dealing with one person this time, another the next, and often with a dozen at a third time, each grimly determined to get what he needed.

I never discovered just why I was given the assignment to coordinate the building program. I had no training in architecture, engineering or any other field even indirectly tied up with planning new buildings. After eight years, however, I can list those elements of training and experience, and certain odds and ends, that were primarily responsible for whatever modest success I have had.

First comes experience as a teacher. Just as a woman knows what functions go on in a kitchen, so a teacher knows what functions go on in a classroom. It is hard to find any substitute for this background.

Second is my 24 years of work as a dean. During these years, I have had firsthand experience in every administrative job in a college of this type except dean of women. I know quite a bit about the problems of the dean of students, the dean of instruction, the admissions officer and registrar, the counseling officers, the business manager, the cafeteria manager. I have been a departmental chairman. I have acted for the president many times in his absence. While I have never taught outside the fields of education, psychology, English and social science, I have helped build almost every cur-



"I worship integrity in others."

riculum we offer, visited almost every type of class, helped select almost every type of faculty person, investigated and checked almost every type of equipment ordered, and I have worked closely with, and learned tremendously from, our own physical plant administrator. There is no adequate substitute for this wide sweep of experience, even if it includes only smatterings here and there.

Third, I have a sound knowledge of eighth grade arithmetic and first year high school algebra. My modest grasp of statistics is useful, and I would have wasted valuable time had I not had a practical knowledge of geometry and trigonometry.

Fourth on the list comes a shallow but wide knowledge of many kinds of construction work. I have dug ditches, pounded nails as a carpenter, laid brick and poured concrete, repaired machinery, run a level and transit as an instrument man for a state highway department, painted houses, and done a poor but energetic job at almost everything else but wiring and paper hanging.

Fifth on the list is an odd collection of commonplace abilities. In the matter of spatial relationships, I know that 2000 sq. ft. is a very large area and that 20 sq. ft. is a very small one. I can visualize a floor plan, elevation, counter and so forth, and I can draw it up so that the architect can take one look, break in wild sobs at my pitiful scratches, then proceed to make a beautiful sketch of just what I had in mind. I have an almost spectacular genius at inventing new and strange architectural innovations. At first, the architects used to reach for the telephone or sidle toward the nearest door, but then they discovered that one out of every 20 had possibilities. I'm like

a batter who gets 10 strikes. Now and then I do get a hit.

Sixth and last come some personal traits and qualities. I respect expertness, regardless of whether it is in a good architect or a good janitor. I'm eager to learn all I can from either, and I have learned a lot from both. I ask many foolish questions, but kindly people take pity on me and help me. I've learned to worship honesty and integrity in others and do my best to live up to these traits. Finally, I have a horror of wasting money; I get far more fun out of working out a highly functional building at the lowest possible cost than I do in "shooting the works" on marble corridors and private office toilets for assistant professors.

Just what is the job of the executive deans who handle the building programs in the 10 state colleges of California? It varies somewhat from college to college, but there is a general pattern that I can best give by describing my own work.

1. *Predicting distribution of students.* One can plan for future capital outlay only if he knows how many students the college must serve, how many will be enrolled in each specific subject field, and how many in each specific subject field will be enrolled in lecture, activity and laboratory classes.

2. *Translating students to be served into student stations.* Our measure of students to be served is the F.T.E., or full-time student equivalent. One F.T.E. is one student carrying 15 semester units of credit. For example, we forecast a physical science enrollment of 500 F.T.E. Next we estimate that 300 F.T.E. will be enrolled in lecture courses, 50 in activity courses, and 150 in laboratory courses. To do this for



"I have a shallow but wide knowledge of many kinds of construction work."



every subject field takes years of experience in administering these programs, three crystal balls, and lots of tea leaves.

With the F.T.E. allotment to lecture, activity and laboratory courses, it is easy to arrive at the total number of student stations for each of the three types of classrooms.

3. *Translating student stations into classrooms.* This is not solely a matter of arbitrarily determining the number of stations in each classroom and arriving at the resulting number of classrooms. Dozens of complicating factors arise. We need more than one geology lecture room but less than two. We need a highly specialized laboratory but will probably use it only six hours a week every other semester. We are certain we should have two engineering laboratories within six years, but we have not even been approved for engineering. And so on. State regulations demand a high utilization of weekly hours and stations. If we fall short in some classrooms, we must overload others.

4. *Determining need for all auxiliary rooms.* We need balance rooms, prep rooms, storerooms, faculty offices, museums. How many? How large? They cost lots of money. They have to be defended. The number of offices is determined by a formula. In determining what other auxiliary rooms we need, I start with the requests of the people who will use them. Since 95 per cent of these people ask for more than we can possibly finance, we investigate and negotiate until we arrive at requests that are defensible as to function and reasonable as to cost.

5. *Functional arrangement.* How should lecture rooms, activity rooms, laboratory rooms, and all the many auxiliary rooms and faculty offices be located by floor—and on each floor—so as to permit the greatest possible efficiency in carrying on the educational program? Here again I draw upon my experience as a teacher and dean to help me.

6. *Making the equipment list.* The architect must not only know what equipment we will install in every room but, often, just where it will be installed. We must get *overworked* faculty people to give us data so we can draw schematic sketches. We must tactfully hold them to something under a million dollars to equip a single laboratory.

7. *Compiling specifications.* We now compile our specifications for the archi-

tecs. Every room, no matter how small, is given one sheet. Some, with their equipment lists and sketches, take a dozen or more. We must show size, stations, F.T.E. capacity, location of electrical outlets, shelving, special blinds if any, basins—in fact, everything the architect needs to plan the building.

8. *Defending the specifications.* Our screening committee is made up of representatives of the state department of finance, the state division of architecture, the state department of education, and the legislative auditor. I appear before them like a condemned man pleading for his life. Why are *these* rooms so large? How can we defend *so many* offices? Why are *those* auxiliary rooms necessary? Why do we need such costly equipment? Why? Why? Since I can seldom take along any of the faculty who will teach in this building, I must be ready with all the answers.

9. *Working with the architect.* Now comes the long pull. For every building project, we have prepared five duplicate books of specifications. Of these five, the architect gets one. Copies go to the college planning office in the state department of education, the state department of finance, and the legislative auditor. The state architect assigned to the project cannot start his work until all these agencies have approved the specifications. At any critical stage in his work, conferences may be called, and each of these state agencies may raise objections. Some may even halt the project until a settlement is reached.

## TWO STAGES TO ARCHITECT'S WORK

In actuality, the architect's work breaks down into two stages. During the first stage, he draws preliminary plans. From these preliminary plans, the estimating office of the state division of architecture determines the probable cost of construction. Then there comes a lull. During this lull, the state department of finance must approve the cost; the governor must include the recommended funds in his budget; the legislature must pass the appropriation.

When the funds finally become legally available, the architect begins to draw the detailed plans. In preparing books of specifications, we always keep in mind every official who will go over them and look sharply for flaws—and "flaws" are invariably those requests that seem to be costly. My chief concern, however, is the architect.

We do our best to include everything that will help him.

In the introduction, we explain the general functions the building will serve. We number every room and ask the architect to use the numbers until his final plans are ready for blueprinting. This saves his time and ours, prevents confusion and delay, and enables us at any time to match his layout for every room with the appropriate page in the book of specifications.

We try to give him a catalog description for every item of equipment each room or other area will contain. If it calls for built-in features, sketches and descriptions are attached. We tell him the locations of electrical outlets, plumbing, loudspeakers, in fact, everything that must be a part of the building, as opposed to movable items. We even specify where movable equipment should be located. This saves time for both of us. Whenever possible, scale drawings are attached.

During both the preliminary and the final planning periods, prompt attention is given to every request the architect makes. We answer many of his questions by telephone. If no immediate answer is available, we get the data as soon as possible and either telephone or write to him.

## MUST HAVE CONFERENCES

At various times we must have architectural conferences. These are arranged by the college planning office in the state department of education, sometimes at the architect's request, sometimes at mine. At first, the conferences deal with general outlay of the building, location and arrangement of classrooms, auxiliary rooms, offices and other areas. Invariably the areas we request must undergo revision.

As the architect progresses, the conferences deal more with details—the location and swing of doors; the outlets for wiring, plumbing, gas, telephones, compressed air, and so on; the kind and location of chalkboards, bulletin boards, tackboards and other classroom facilities; the details of equipment for which roughing-in is necessary.

For buildings housing only lecture rooms, these details are not difficult to work out. The headaches arise when we are planning the more complicated structures for science, art and industrial arts, home economics, drama, the cafeteria, and even certain facilities for the social sciences, business, education, psychology and the like. Even the library requires many a long con-



ference if we expect to get a highly functional and economical structure.

We have a great respect for good architects. Our greatest difficulties, during the long planning periods, are those that have come from other sources. First are those that arise from members of our own staff. They almost always want too much in the way of costly features, and think that if they ask for too much, I can settle for what they really need. They are hurt when they learn I do not work on this basis. They are indignant when I tell them they must dig up data for me in two days. They can't believe I would have the intestinal fortitude to call them back from vacation. They can't understand why the architect can't do all the fantastic things they dream up.

The differences we have with the representative of the state department of finance and the legislative auditor are very few, but very, very important indeed. They always concern costs.

10. *Checking during construction.* Theoretically at least, our job ends when the project goes to bid. Actually, it may not end until long after the building is completed. During the course of construction, the work is checked by a construction supervisor employed by the state division of architecture. We keep in constant touch with the progress of construction, check the paint schedule, and recommend the interior and exterior color schemes (on the advice of an advisory committee from the art faculty). We try out these colors with the architect; often we have to modify them. We sometimes catch errors in planning, and either the architect or ourselves have to initiate change orders, depending on who made the error.

11. *After-construction follow-up.* Few buildings are so perfectly planned that no changes are necessary after they are completed. Ventilation systems turn out to be faulty; acoustical treatment is inadequate; clay traps clog up; floors turn out to be too slippery; specialized doors do not work as they should. I suppose we have had to follow up 60 or 70 such major matters in the last four years. The educational functions are my concern. Our maintenance superintendent takes charge of all mechanical details. Our college business manager tells me whether the work order has an unexpended balance large enough to pay the cost, or whether we must seek new funds. We must then write and clear the justification through the various state

agencies and keep up the pressure until we get results.

12. *Compiling and defending the equipment list.* The average equipment list runs to thousands of items and may run as high as \$300,000 for a building of 50,000 sq. ft. Our equipment list must show every item in terms of *room number, catalog description, items needed, items on hand, net to be bought, unit price, total price, and item number.* Every item must be defended before the financial authorities of the state. Many are rejected without appeal. For many others we must submit lengthy justification, after lengthy justification.

The 12 steps described apply only to the typical classroom building. While the general procedure is the same, many different problems crop up when we work on the library, administration building, cafeteria, maintenance shop, play fields, parking lots and garages, and the other nonclassroom facilities. In other ways it is more difficult.

We have no formulas to defend our requests, no similar situations in other colleges to compare, few recognized standards to back our claims. How large should a dean's office be if he carries more responsibility than similar deans in other colleges? Why do we need a larger carpenter shop than other colleges of like size? Why should we get expensive basement storage when other colleges build surface storage? Why a golf driving cage, an electronic switchboard for the little theater, a multi-storage garage, a bakeshop for the cafeteria kitchen? The other colleges have none of these, so why, why, why?

#### HELP ARCHITECTS MASTER-PLAN

One of our most difficult jobs was to help the architects master-plan the campus for 5000 students. We are now replanning for 9000, and this task is far more difficult because we cannot start with a clean drafting board. It is true that the architects draw the plans, but it is our responsibility, here, to determine the interrelation of functions. Where should the library be placed? The science building? The baseball diamond and tennis courts?

If planning for buildings is to be efficient, economical and productive of the greatest possible utility, we must develop procedures and standards. In 1948, we had virtually nothing to guide us. We have come a long way since then.

We insist upon knowing the ultimate size of the student body we are

going to serve. First it was 5000, the figure set by the Strayer Survey of High Education. This limit was discarded by the "Re-Study of the Needs of California in High Education," published in February 1955. Unfortunately our governing body, the state board of education, refused to set a new limit. It was then that we got into the only major difficulty we have had with state-level authorities. I stubbornly insisted I could not plan unless I knew what I was to plan toward. Not until May 1956 did the state board finally set the limit at 9000 F.T.E.

Our next job was to get agreement, from the president and staff of San Francisco State College and from the state department of education, on just what sort of college we intend to have when we reach 9000. I got that agreement. We now know where we are headed. We will almost certainly deviate as changing times bring changing demands upon us, but, at least, we have a clear-cut goal to deviate from. And, until we deviate, we know exactly what functions we must keep in mind as we plan new buildings and change existing ones.

I was fortunate in getting the president of my college to approve several fundamentals which I believe are necessary to wise planning. Here they are, in a somewhat oversimplified form:

1. *Function must come first.* We must have buildings that serve, with the greatest possible efficiency, the activities that will go on in them when they are built. Fortunately, the most functional buildings usually are the least expensive to build. We were the first state college to build a modular library, a student personnel wing with the records room in the center and the corridors on the outside, the first to use a large general shop in industrial arts.

2. *We must design for flexibility,* not only in terms of immediate but in terms of ultimate use. In the case of every building we have built, I was certain we would have to use many areas for functions other than the highly specialized functions the faculty tried to get me to approve. Time has supported this belief. I believe that within 10, 20 or 30 years our educational program will undergo many changes, so I call for buildings so flexible that they can be adapted to serve changing functions at minimum cost.

Toward these ends, we seek open construction; a minimum of reinforced

concrete bearing walls; a maximum of slab construction with weight bearing columns; modular construction with each module carrying its own light, heat and ventilation; movable metal partitions or, when these are rejected, light dividing walls; doors wherever they may be used in the future; all water and drains on exterior walls of laboratories instead of at each laboratory table; floor conduit for electric and telephone wire, and so on.

3. *We must design for economy of capital outlay funds.* If we get away with extravagance one year, the time will come when the state authorities will crack down. Too, function is impaired when we get more space and more facilities than we can use effectively.

Toward this end we kept our little theater down to 250 seats and our

auditorium to less than 800. We get as many multipurpose classrooms as possible, even in laboratories, so that we have maximum use out of each. We ask for one large storeroom with 500 square feet instead of three storerooms of 200 feet each, and thus actually get more usable storage area. We take ceilings as low as 9 feet 3 inches. These are a brief sampling of our means of saving construction funds.

4. *We must design for economy of both operation and maintenance.* Years of knowledge of how budgets are whittled down by fiscal authorities have taught me that it is difficult to defend large sums for operation and maintenance help, no matter how necessary they are for buildings not planned for economical operation and maintenance.

Toward these ends, we ask for one large stockroom instead of two smaller

ones, so that we need one less stock clerk. We ask for aluminum sash instead of steel; for linoleum floors instead of asphalt tile; for janitor closets large enough for carts; for labor saving landscape planting. We suggest door-height and wire mesh partitions, when functions permit, to save heating and ventilation costs.

We have made our mistakes. Many of our requests are rejected by the department of finance and the legislative auditor, because, they say, we have no evidence to support our claims for economy. We are now collecting such evidence. Many other of our suggestions have been adopted not only for this but for the other colleges. We are still investigating, experimenting and requesting. We lose many a battle along the way, but we're still winning the wars. #

## ***Should Current Restricted Funds Be Charged to Overhead?***

**T. E. BLACKWELL**

*Educational Management Consultant, Washington University, St. Louis*

COLLEGE AND UNIVERSITY BUSINESS officers are well aware of the growing importance of the allocation of indirect expenditures and the determination of costs. Since educational institutions are nonprofit organizations, college and university accounting is not designed to determine annual net profit and net worth.

However, it is frequently necessary to compute total costs of certain functions or projects. Total costs include direct costs, *i.e.* those related to the particular service, project, function or department, and indirect costs or overhead, including general administration, general expense, and the cost of maintenance and operation of the physical plant. For some projects, an appropriate share of the cost of operation of the libraries is an equitable addition to indirect costs.

Even in the early days of our profession, many institutions were allocating indirect expenditures in order to ascertain the true cost of the operation of auxiliary enterprises, such as residence halls, dining halls, and book-

stores. It usually is assumed that these activities will be self-supporting. Though some institutions may prefer to subsidize certain of these functions, it is well to know the exact amount of such subsidization.

In a university with a number of schools and colleges, each with its own endowment, it is desirable to know the extent to which such restricted endowment income, together with the tuition received by each school, is sufficient to cover costs, including indirect costs. Insofar as it is possible, each school should be self-supporting. If a school is shown to be operating on a chronic deficit basis, steps should be taken to obtain additional endowment or other firm support for it.

If the income of a school from its own tuition and endowments is more than sufficient to cover its direct operating cost, its dean and faculty may insist upon the privilege of carrying forward its unexpended income each year instead of permitting it to lapse for the benefit of other schools of the university next year. Should a school or

college be fortunate enough to have designated endowment income more than sufficient to cover all costs, this fact should be disclosed by the accounting records. Otherwise, the administration, by permitting such unexpended restricted endowment income to lapse, may thereby inadvertently violate the provisions of the bequest or instrument of gift that created the endowment.

It is essential that all restricted endowment income be utilized exclusively for the school or function stipulated by the donor. If not expended for this purpose during any one fiscal period, the endowment income should be carried forward and reappropriated for the specific purpose for which it was designated. For these reasons, many universities have found it necessary to develop procedures for the equitable allocation of indirect costs to each of their colleges and schools.

The volume of sponsored research has reached spectacular proportions on some campuses. The interest of the federal government in research, stimu-

iated by World War II and the tensions of the "cold war," has had a profound effect upon the research function of higher education. Industry also looks to the colleges and universities to an increasing degree for facts upon which to build the technology of tomorrow. It is important that such research not be undertaken at the expense of instruction, the primary function of higher education. Indirect costs too often are overlooked or disregarded by research workers. These costs must be met from some source, and it should be emphasized to all concerned with the negotiation of sponsored research contracts that, unless, by the terms of the contract, the institution is permitted to recover all costs, instruction and the other essential activities of the institution may suffer.

#### SHOULD CARRY ALL COSTS

It is crystal clear that sponsored research should carry its full burden of costs, including indirect costs. There is, however, a twilight zone in which the facts and even the principle involved may not be so obvious. For instance, a professor may approach an oil company executive for a gift to support a research project in geology, with small probability of results of direct interest to the company. To request a gift large enough to cover the indirect as well as the direct cost of the project may endanger the receipt of the gift itself. In other words, where the interest of the professor and his institution in conducting the research is greater than that of the donor in having the work done, public relation considerations rather than cost accounting principles may dictate the amount to be requested.

Many foundations have recognized the equity and the wisdom of including a reasonable allowance for indirect costs in their grants made to finance specific projects in institutions of higher education. Foundation officials are becoming increasingly aware of the fact that university administrators, under pressure from deans and faculty members, may permit their institutions to undertake too many projects without adequate provision for the payment of indirect costs. Moreover, the borderline between sponsored research and research financed by grants is becoming more difficult to define.

Some institutions are requesting and obtaining overhead on virtually all projects financed by external agencies, whether based upon contracts or grants. If the fact that overhead will be

charged is made known to the donor at the time the gift or grant is solicited or accepted, no legal or ethical question is involved.

However, many donors and some foundations do not request an accounting of the funds they have provided. Consequently, an institution, convinced of the equity of and the need for making a charge for overhead, may be tempted to assess the charge without the consent or knowledge of the donor. This is, of course, to be condemned. It is almost the same as one helping himself from the purse of his benefactor while his back is turned, justifying the action on the assumption that he would have been given more if he had only requested it.

In the majority of American jurisdictions, the acceptance of a restricted gift or grant by an educational or charitable corporation creates a charitable trust. This charitable trust is, of course, subject to the law of trusts. One of the cardinal principles of trust law is that a trustee cannot himself establish or determine the amount of his fee for the administration of the trust. The courts have declared:<sup>1</sup> "A trustee whose compensation is not fixed by the instrument or by court order has no power to fix his own compensation."

At common law, a trustee was supposed to serve without compensation. Today, however, it is customary for the trustees of private trusts to ask and to receive a reasonable fee for their services. This fee usually is stated in the trust instrument. If not so stated or if the stated rate is considered excessive by the court, it is determined by the judge. The majority of states have established trustee fees by statute.

By long established custom and tradition, colleges and universities have accepted endowments and other charitable funds entrusted to them without expecting or requesting an annual fee for their administration. It is quite probable that a prospective donor would be surprised and shocked if he were asked to include a provision for an overhead charge or trustee fee in the instrument of gift establishing an endowment for the support of a professorship. It is probable that he would be angered as well as shocked if he were to discover that the institution was planning to charge overhead against the annual income derived from

this trust fund without his knowledge or consent.

It has been brought to my attention that one institution plans to do just this. Despite clear trust law<sup>2</sup> and established tradition to the contrary, it intends to assess an overhead charge of 10 per cent each year against all its current restricted funds unless forbidden to do so by the specific terms of the instrument of gift or by subsequent action of the donor. This overhead charge will be in addition to the costs of investment management assessed against the income of endowments. Since no donor of nonproject money would have reason to anticipate such action and forbid it in his letter of gift and since few donors request an annual accounting of the use of their gifts, it is probable that virtually all current restricted funds held by this institution will be assessed this charge.

#### INCLUDES MANY THINGS

To appreciate what this will mean, we should remind ourselves that, by definition,<sup>3</sup> current restricted funds include not only gifts and grants for specific projects, but also restricted gifts, grants and bequests for the support of instruction and the other basic functions of higher education, and the annual income from endowments given for the support of specific departments, schools and divisions.

It is to be hoped that the institution in question will rescind its action before its reputation and that of other colleges and universities has been injured. The fact that there has been so little litigation to date involving the failure of institutions of higher education to fulfill their duties as fiduciaries speaks well of this reputation.

Last September<sup>4</sup> I called attention to another temptation now confronting some of our colleges, *i.e.* should they utilize the large profits or capital gains, derived from the sale of common stock purchased during the depression years, for general corporate purposes, including the absorption of operating deficits? So far as I know, no institution has yielded to this temptation, but it is shocking that it is even under consideration.

<sup>1</sup>Bogert, George G.: *Trusts and Trustees*, Vol. 4, Para. 975, Vernon Law Book Co., Kansas City, Mo. 1948.

<sup>2</sup>College and University Business Administration, Vol. 1, p. 139, American Council on Education, Washington, D.C. 1952.

<sup>3</sup>Blackwell, T. E.: *Proper Utilization of Endowment Income*, Coll. & Univ. Bus. 23:53 (September) 1957.

<sup>4</sup>In re Locarno Bldg. & Loan Assn., 13 A 2d. 791 (1940).



# How Great Is the Growth in College Food Service?

Five years bring tremendous changes  
in college owned facilities and equipment,  
recent C.U.B. survey indicates

FOOD SERVICE TRENDS OF FIVE YEARS ago have grown into bold actualities on the campuses of American colleges and universities. Whereas in 1952 about one-third of the student body was fed in college owned facilities, today more than one-half is fed on campus. This represents an increase of from 693,000 in 1952 to 1.5 millions in 1957.

Some significant statistics emerge from a questionnaire survey covering residence halls and food service facilities mailed earlier this year to 1832 institutions of higher education by COLLEGE AND UNIVERSITY BUSINESS. A similar survey that was made by this publication five years ago permits comparisons to be made on many items.

Of the 1.5 million students eating meals in college owned facilities today, 825,000 are on a prepayment basis and 725,000 are on a cash per meal basis. Colleges serve approximately 480 million meals each year, and the raw food bill is \$225 million. When snack bar revenue is added, the total raw food cost is approximately \$241 million.

## BIG INCREASE IN SNACK BARS

Snack bar installations in the 1952 survey numbered fewer than 800, but the 1957 survey indicates 1900 installations with a seating capacity of 5000 at counters supplemented by about 100,000 seats at tables. Some 255 colleges operate more than 400 snack bars in residence halls, while nearly a thousand colleges operate more than 1500 snack bars in student union and other locations. The accompanying tables show the items

served at these snack bars and the equipment provided.

**Table 1. Items Served at Snack Bars**

Items	% Offering
Sundaes, Sodas .....	90
Toasted Sandwiches .....	83
Bottled Soft Drinks .....	50
Hot Plates .....	50
Cold Sandwiches .....	94
Hot Beverages .....	99
Frankfurters .....	73
Baked Goods .....	90
Hamburgers .....	84

**Table 2. Snack Bar Equipment**

Item	% Having
Soda Unit .....	83
Dishwashing Machine .....	43
Mixer (beverage) .....	85
Carbonator .....	76
Food Warmer .....	53
Milk Dispenser .....	46
Griddle .....	82
Ice Cream Freezer .....	50
Soft Ice Cream Maker .....	60
Coffee Maker, urn .....	64
Coffee Maker, small batch .....	64
Toaster .....	83

The manager of the snack bar is reported as being responsible to the business manager or other business office executive by 41.5 per cent of the responding colleges; to the food service director by 39.5 per cent; to the student union director by 17.8 per cent, and to the residence hall director by 1.2 per cent.

Dining halls are large enough to serve at one time about 53 per cent of the number of students fed (820,000 of 1.5 millions). Most student

meals are served cafeteria style today. About 80 per cent of the reporting colleges serve only breakfast in the cafeteria; 12.5 per cent use table service exclusively, and 7.5 per cent of them provide both table and cafeteria service.

At lunch time, 70 per cent of the colleges use cafeteria service exclusively, with 15 per cent offering table service and the other 15 per cent offering both.

Table service at dinner is available in about 26 per cent of the reporting colleges; cafeteria service in 52 per cent, and a combination of the two in 22 per cent.

## RAW FOOD EXPENDITURES

Of the total raw food expenditure of \$241 million, \$76 million is spent for meat. A little more than 15 per cent of the meat expenditure is spent for pre-cut portions. Approximately 3.2 million gallons of ice cream are consumed annually, excluding that served in snack bars.

Frozen foods are used in large quantities. More than 96 per cent of the colleges report increases in frozen food use over the five-year period, the median increase being 27 per cent. For frozen baked goods, the median increase is more than 50 per cent.

Consumption figures for the major frozen food items are: frozen vegetables, \$5 million, a median increase of about 37 per cent; frozen fruit, \$1.8 million, a median increase of 25 per cent, and frozen juices, \$1.25 million, a median increase of approximately 40 per cent.

(Continued on Page 54)





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(Continued From Page 52)

Nearly all reporting colleges (99 per cent plus) use paper napkins, although 25 per cent also use cloth napkins, presumably at dinner. Nearly half the colleges report the use of tablecloths; the remainder use paper place mats, or a few (less than 3 per cent) cloth place mats.

Of the colleges reporting on dinnerware, 87 per cent use china. However, many use other types as well, since 32 per cent report using plastic and 24 per cent, glass. Stainless steel flatware is reported in use by 74 per cent of colleges responding to this question, but 43 per cent report using silver plate, indicating that many use both types.

College operated food service was reported by 87 per cent of respondents, with 13 per cent reporting concessionaire operation.

A feeding operation of the magnitude reported by the 364 colleges requires tremendous installations of equipment for food preparation and service. Some 6000 ranges of the commercial type and 3500 commercial toasters are in use; 2125 each of milk dispensers and food dispensers; 1317 garbage disposal units of the heavy duty commercial type.

**EQUIPMENT IN USE**

In the survey just concluded, 364 colleges and universities reported on equipment in use. These 364 colleges have 849 dishwashing machines in operation. Of these 176 did not identify the capacity of their dishwashing machines. However, 94 colleges report 137 machines washing from 2000 to 4999 pieces per hour; 76 colleges have 120 machines washing from 1000 to 1999 pieces per hour; 73 colleges have 94 machines washing under 1000 pieces an hour, and 67 colleges have 120 machines washing more than 5000 pieces an hour.

The 364 colleges and universities report they use 1367 walk-in refrigerators. The largest number, 163 colleges, have 3999 refrigerators of this type, and they have a cubic foot capacity of more than 750. The next highest number, 99 colleges, have 269 walk-in refrigerators with capacities that ranged from 500 to 750 cubic feet.

To another question regarding bakeshops, 339 colleges and universities replied. Of these 251 have their own bakeshops, 169 centralized, and 82 decentralized. In fact, one respondent operates 10 or more such shops. #



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# NEWS

**Fall Enrollments at All-Time High . . . Tells How to Improve Education for Safety . . . Air Force Base Has Accredited College . . . New York Presidents Visit Corporation Heads . . . Stanford to Open German Branch**

## **Suggests Ways for Colleges to Improve Safety Education**

CHICAGO. — Colleges aren't doing all they can in the field of safety education.

Two ways in which the situation could be improved were suggested at the National Safety Congress here by Mrs. Eva M. Dratz, director of the department of elementary education at Western College for Women, Oxford, Ohio. The first way would be to require future teachers to study methods of safety instruction in college.

The second way to correct the fault, Mrs. Dratz said, would be to require college students to study fundamentals of safety. Although many colleges include safety knowledge and skills in regular courses of instruction, some make the instruction available on an elective basis only.

"It is apparent that the college student who does not expect to teach or major in a field which must stress safety technics is exposed to very little safety education," she said.

At the same convention, the American Society of Safety Engineers proposed expanding safety training and education courses in U.S. colleges and universities.

A recent survey shows that 54 colleges and universities now teach industrial accident prevention and safety engineering. In addition, about twice this number teach some form of safety education.

Fred R. Temple, chief Convair safety engineer, Fort Worth, Tex., outlined the A.S.S.E. proposed program.

Under this program safety education would be offered all students in the first two years of college, and, in addition, all technical, engineering and science majors would take a course in fundamentals of accident prevention. The program also would stress

the need for more colleges providing a major for future safety engineers.

Norman V. Steere, assistant director of the department of public safety at Michigan State University, told how that university's safety department conferred with student leaders in an effort to get a student accident reporting system "off the ground." In this conference the department got suggestions on ways in which student reporting of student accidents could be implemented.

"Within the next year," Dr. Steere said, "Michigan State University will, we hope, be able to try out some of the suggestions of the student leaders."

## **Incorporate to Aid Harvard Students**

CAMBRIDGE, MASS. — This year a new nonprofit organization has been established to aid Harvard College students in organizing their own business enterprises.

Harvard Student Agencies, Inc., with a board of directors of five students, five Harvard alumni in the Boston area, and five faculty members, will, as a result of its incorporation, provide office space, telephone, a central accounting system, credit and legal advice to Harvard students. Enterprises will be sought that do not directly compete with established concerns in Cambridge. It is hoped that in the first year the corporation will be able to help 100 students earn \$25,000 toward their expenses by running 20 small businesses.

## **Fire Destroys Building**

OTTUMWA, IOWA. — A fire last month at Ottumwa Heights Junior College and Academy, a Roman Catholic institution, resulted in destruction of a building valued at \$1½ million. There were no injuries among students or faculty as a result of the fire.

## **Nationwide Increases Bring Fall Enrollment to an All-Time High**

CINCINNATI. — About 5 per cent more full-time students are attending American universities and colleges this fall than during last year's all-time peak enrollment, Dr. Raymond Walters, president emeritus of the University of Cincinnati, reported recently.

Increases in full-time students this fall are nationwide, not merely regional, Dr. Walters commented, "showing the widespread desire for higher education."

"They are a portent of what will come when, in a few years, campus gates are besieged by the children now in primary schools who represent the population rise that followed World War II," he said.

Analyzing immediate returns which have come to him of approximate enrollments from close to 600 approved institutions, Dr. Walters made these points:

1. As to full-time attendance, 86 per cent of the approved institutions recorded thus far have more or as many students this fall as last year, with 65 per cent having more.
2. As to freshman attendance, 74 per cent have more or as many first-year students, with about 50 per cent having more.
3. Of state and municipal universities reporting thus far, about 70 per cent have increased numbers of full-time students and fewer than 10 per cent (chiefly in freshmen) have decreases.
4. In view of limited facilities as to residence halls, classroom buildings, and faculty personnel, a group of private universities and some liberal arts colleges are restricting admissions.
5. A similar stabilization seems to be in process at about a third of the





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independent engineering schools and institutes thus far reporting. However, the total enrollment in technological courses in all institutions is definitely higher than in the fall of 1956.

6. The most consistent increases are at teachers colleges, where 75 per cent report gains, 17 per cent report no change, and only a few of them report losses.

7. Enrollment advances are general at urban universities and colleges in larger cities where, since students can live at home, the problem of financial expense is less formidable.

These estimates of full-time enrollments this fall at typical larger institutions were listed by Dr. Walters as follows:

*Public universities:* Arkansas, 5000; California, 40,313; Cincinnati, 6613; City College of New York, 9651; Connecticut, 8750; Florida State 6300; Georgia, 6000; Houston, 6000; Idaho, 3763; Illinois, 22,000; Indiana, 14,350; Kansas, 9200; Kent State (Ohio), 6200; Kentucky, 5700; Louisiana State, 8450; Maine, 3900; Massachusetts, 4419; Missouri, 12,500; Montana State College, 3525; Montana

State University, 3000; Nevada, 2000; New Mexico, 4200; North Carolina, 7038; Ohio University (Athens), 7500; Oregon State College, 7200; University of Oregon, 6000; Pennsylvania State University, 17,200; Purdue, 13,100; Rhode Island, 2502; South Carolina, 4300; Tennessee, 7850; Texas, 22,800; Texas Southern, 2200; Utah, 8400; Vermont, 2949; Virginia, 4166; State College of Washington, 5607; Wayne, 8300; Wisconsin, 22,350; Wyoming, 3242.

*Privately controlled universities:* Baylor, 4600; Boston College, 5500; Boston University, 10,000; Buffalo, 4639; Columbia, 12,000; Creighton, 2050; Dartmouth, 3030; Denver, 3200; Detroit, 5500; Duke 5350; Fordham 5150; Harvard, 12,362; Lehigh, 2750; Loyola (Ill.), 5000; Massachusetts Institute of Technology, 6200; Miami (Fla.), 8300; New York University, 14,000; Northwestern, 8300; Notre Dame, 6000; University of Pennsylvania, 9250; Princeton, 2940; St. John's University, Brooklyn, N.Y., 4600; Southern California, 8700; Western Reserve, Cleveland, 3100; Yale, 7300.



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## Open Accredited College on U.S. Military Base

HEMPSTEAD, N.Y.—Mitchel College of Long Island University was dedicated last month at Mitchel Air Force Base.

Adm. Richard L. Conolly, president of the university, and Col. Marshall A. Elkins, base commander, declared that the new institution is the first fully accredited residence college on a U.S. military installation.

Mitchel College will offer baccalaureate and associate degree programs and will have divisions in the humanities, sciences, social sciences, and business administration. Most of the 35 member faculty has been assigned from the university's C. W. Post College at Brookville, L.I.

Tuition fees are set at \$11 for each semester hour, less than one-half the average fee of private colleges and universities. The federal government will pay \$7.50 of that amount for members of the armed forces on active duty.

The college is open to members of the armed forces on active duty and their dependents, civilian employees of the air force, active participants in the air force reserve program, and veterans who are eligible for the educational benefits of the G.I. bill of rights.

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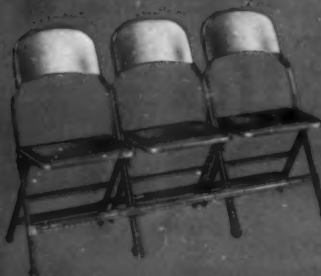


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## E.S.F.I.L.A.C. Puts on Air-Borne Campaign

BUFFALO, N.Y.—Presidents of 22 New York colleges initiated an intensive air-borne campaign last month to call on corporation executives in five cities on behalf of the Empire State Foundation of Independent Liberal Arts Colleges.

"Operation Airlift," a concentrated experiment in raising money for colleges, found the presidents traveling by plane from Buffalo to Rochester, Syracuse, Utica and Albany. In each of the five cities the presidents called on local industrialists to ask for financial support for the Empire State Foundation colleges. The Foundation is an organization of nontax supported liberal arts colleges joined together for the purpose of soliciting funds from business and industry.

The goal for this year's campaign is \$500,000; the 1958 goal is \$675,000, and the 1959 goal is \$850,000. By 1959 an additional \$1,150,000 will be needed annually, or \$50,000 for each college, to fulfill annual operating expenses. The Empire State Foundation goal would represent 75 per cent of the additional operating income needed by 1959, with the balance coming

from annual giving by alumni, parents and trustees. This is in addition to the capital needs by 1959 of the 23 colleges which will total \$100 million.

Members of the Empire State Foundation are residential colleges controlled by independent boards of trustees. They receive no tax support but rely on student fees, endowment yield, and gifts for their total income.

## Columbia Leads in Foreign Students

NEW YORK. — Admissions of foreign students to Columbia University have reached an all-time high, surpassing last year's total by 35 per cent, it is estimated. Lois Dickson, acting foreign student adviser at the university, announced the rise in applications in a report published in October.

Some 2350 students from abroad are enrolled, including many who plan to become citizens of the United States. Columbia's total, it is believed, will be the largest in the country. During the last decade, Columbia annually has had the largest foreign enrollment among American universities, an average of 70 nations being represented. Final enrollment figures will be available later in the school year.

Two areas — Latin America and Hungary—are especially heavily represented in Columbia's American Language Center, where foreign students learn our language and customs.

To aid the Hungarian freedom fighters, Columbia this fall has added seven new scholarships to its assistance program of 10 scholarships established last year for these students.

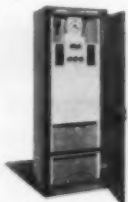
A new foreign student assistance plan, called the "1-for-1 program," has been started at Columbia with the cooperation of the Asia Society. Under this pilot project, 30 students from abroad have been assigned to as many American students, who act as the visitors' unofficial advisers. Correspondence had been exchanged for some weeks between each American and his designated partner abroad. When classes got under way recently, each American took his foreign charge in tow to acquaint him with campus customs and procedures.

Announced at the same time was a new foreign student scholarship program at Columbia College, the undergraduate liberal arts school for men. The program has been established in cooperation with the Institute of International Education.

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## Stress Safety and Health in Off-Campus Housing, Say Speakers

CHICAGO. — What's more important in off-campus housing than economy or comfort? Safety and health, in the opinion of speakers at the 45th National Safety Congress which met here in late October.

"The most important elements that determine the desirability of off-campus property," Francis J. Quinlan, fire inspector at Cornell University, Ithaca, N.Y., said, "are those that involve the personal safety of occupants."

He told delegates to the convention of Cornell's off-campus fire protection procedures, described the university's inspection program, and cited instances of fires occurring in buildings not meeting minimum fire or safety standards.

"At almost every college and university in the United States, thousands of new students live off campus. Every effort must be made to have safe housing for them."

Improper lighting is another hazard of off-campus housing, William J. Holland, sanitarian in the environmental health department of the Uni-

versity of Michigan Health Service, Ann Arbor, declared.

Of 39 colleges and universities surveyed, a third admitted they had established no minimum lighting standards for off-campus housing. In fact, in some instances this situation has been completely ignored.

Dr. Holland predicted that off-campus housing is here to stay. "Student housing should provide an environment in which the student will not merely survive his four years of college, but will thrive physically, morally and intellectually," he declared.

Does it? The survey of the 39 colleges and universities shows that:

1. Most off-campus housing is in older homes.
2. While special storage areas for combustible materials are required by most of the 39 colleges and universities, few specified that the areas be fire-resistant.
3. The safety problems brought about by the student's use of his room as a study, living and sleeping room—perhaps even as a laboratory—require a "great deal of investigation."
4. More than half of the standards of the schools surveyed permit sleep-

ing in basements. About a third permit sleeping in cellars.

"A student spends more time in his room than any other place while at school," Dr. Holland said. "It is his home, his study and work area."

"Safety standards, actively enforced, can serve not only to protect him physically, but also to educate this future community leader to the importance of health and safety in housing."

## Plan \$175 Million Cultural Center for Cleveland

CLEVELAND. — A \$175 million plan for shaping the city's University Circle area, located some 4 miles east of Cleveland's downtown district, into an unsurpassed cultural center was recently announced.

The plan is the outcome of 18 months' work on the part of the institutions in the area, of city authorities, and of a Boston planning firm. It proposes a 20 year program, including the acquisition of \$18 million of land, \$144 million of new construction, \$9.6 million of new parking facilities, a \$4.8 million road system, and \$2 million in landscaping and play areas.

Today, there are some 30 institutions in the University Circle Group, with more than \$125 million already invested in the area. The investment called for by the plan would give Cleveland a \$300 million cultural center, with 488 acres devoted almost exclusively to science, technology, medicine, education and the arts.

Basic principles of the plan have been accepted by trustees of Case Institute of Technology, Western Reserve University, and University Hospitals, the three major institutions in the area. They have agreed to: (1) develop their own facilities in keeping with the plan; (2) submit architectural plans for specific buildings to a central reviewing board; (3) act jointly on matters of land acquisition and parking facilities.

First part of the plan would correlate the growth of the institutions to bring science, technology and medicine together in one area, liberal and fine arts in another, and leisure institutions in another.

Part two of the plan involves improving traffic circulation. A four-lane road will be built to circle the area, traveled by a loop bus route.

Part three calls for development of a park-like character throughout the area.

## EASE PARENT BURDEN OF RISING EDUCATION COSTS

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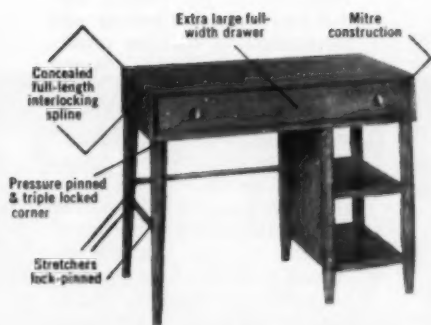
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## Tuition Fees to Rise 20 per Cent at Chicago

CHICAGO. — An average increase of 20 per cent in tuition fees of the University of Chicago will go into effect with the opening of the summer quarter in 1958, Chancellor Lawrence A. Kimpton announced last month.

The tuition increase is the first since 1953. It brings the rate in the college, the graduate divisions, and all professional schools except medicine, to \$840 for an academic year. Tuition in the medical school will be \$1000. In addition, a \$60 comprehensive fee will become effective. Present fees are \$37.50.

The university's new schedule of fees will equalize the tuition charges for the undergraduate and graduate and professional levels, except medicine.

## Stanford to Open Branch in Germany

STANFORD, CALIF. — Plans are near completion for the establishment of a Stanford Study Center in Germany. It would be in effect a branch of the university, according to a recent announcement by President Wallace Sterling.

The center will accommodate two groups of 60 Stanford students a year for six months each. The anticipated opening date is next June.

The facility being negotiated for is located at Beutelsbach, 12 miles from Stuttgart, and consists of dormitories and classrooms on a 30 acre site.

Students will be selected from applicants among regularly enrolled Stanford students, probably sophomores and juniors. Two Stanford faculty couples will be in residence.

Courses will, for the most part, fit into Stanford's general studies program, with emphasis on the literature, history, culture and economics of Europe. Native teachers will give intensive language instruction.

Under study for nearly a year, plans were facilitated by a \$15,000 grant from the Fund for the Advancement of Education. Part of the funds were used to send a four-man survey team to Beutelsbach, and the rest is to be devoted to such special costs as installation of a small library, and other activation costs.

The center is expected to be self-sustaining. Students will pay the usual

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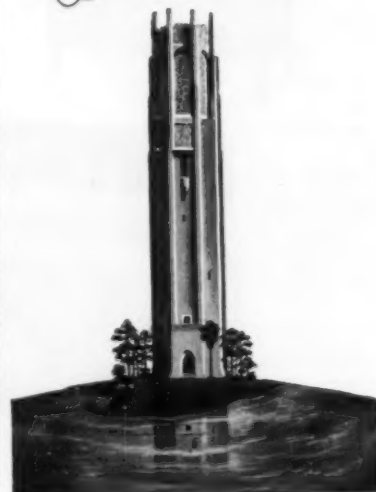
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COLLEGE and UNIVERSITY BUSINESS



## How to teach sunbeams new tricks in classroom daylight control...



Wayne University's new Community Arts Building in Detroit, Michigan, is a distinguished example of modern school architecture. Note how Owens-Illinois Glass Block panels add functional beauty to the exterior design.



Community Arts Building, Wayne University, Detroit, Michigan.  
Architect: Suren Pilafian, A.I.A.

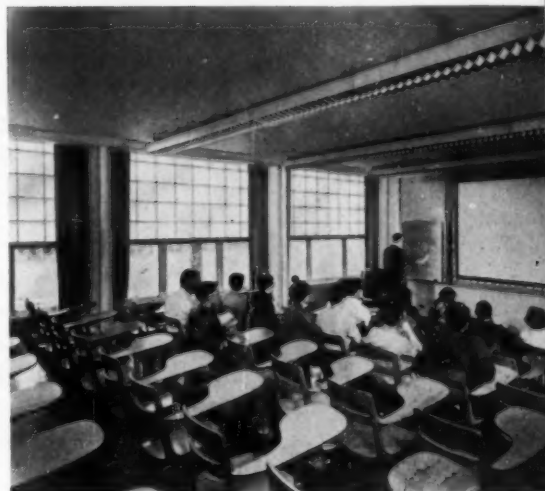
Toplite Roof Panels flood this deep classroom with soft, evenly distributed daylight. Students attending sculpture classes in Wayne University's new Community Arts Building are more relaxed because they are not distracted by glare and harsh contrasts.

Inside, glass block panels provide glare-free, diffused daylight. This classroom, designed for flexibility, can be easily darkened with drapes or shades for audio-visual instruction.

In today's new schools, classroom *comfort* and maximum *flexibility* are of prime importance. Owens-Illinois Glass Block and Toplite Roof Panels provide the ideal solution to both needs.

All year 'round, scientifically designed prisms in glass block panels and Toplite Roof Panels work wonders with raw, harsh sun rays. Brightness and eyestraining contrasts are kept at comfortable levels in all parts of the classroom. Solar heat is filtered out during hot Spring and Fall days... students are insulated from cold winter winds (equal to an 8"-thick masonry wall). Glass Block-Toplite classrooms are quickly converted with drapes and shades into an ideal setting for audio-visual programs.

If you are planning to build a new school or modernize an old one, be sure to investigate the unsurpassed daylighting advantages of Owens-Illinois Glass Block and Toplite Roof Panels. Write for details: Kimble Glass Company, subsidiary of Owens-Illinois, Dept. CU-11, Toledo 1, Ohio.



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Stanford tuition and room and board fees. A favorable differential in food costs and other factors will enable the university to furnish transportation to Germany by chartered plane.

Stanford is interested in establishing similar centers in other non-English speaking foreign countries, the president declared.

### Michigan Finds Students Hit by Economic Forces

ANN ARBOR, MICH. — Higher costs of attending college and a noticeable decline in well paying summer jobs have exerted an economic squeeze on many students, University of Michigan officials believe.

The admissions office reports a "noticeable increase" in the number of freshmen, accepted for admission, who cited financial reasons in canceling their applications.

Here, in brief, are some of the ways in which economic forces are being felt by university students:

**Jobs:** Total off-campus jobs obtained by students last summer through the personnel office dropped one-third compared to 1956. The June through August total — 232 jobs — compared with 700 placements in June 1955, when demand from near-by auto assembly plants was high.

On-campus employment remains relatively stable.

**Loans:** The demand for loans is heavy this year as compared to last.

University loan funds passed the \$1 million mark last June, but their growth has not kept pace with demand.

**Scholarships:** During the 1955-56 year—the last for which complete figures are available—Michigan students received \$1.3 million in scholarships, fellowships, prizes and grants in aid. About one in every five students received this help.

Regents-alumni scholarships, by far the largest program, and the only major source of scholarship help for freshmen, were awarded 485 high school seniors last spring. University funds for these scholarships have been upped from \$500,000 to \$600,000 for this year.

**College costs:** With the 25 per cent increase in semester fees, basic costs for entering freshmen total \$1134 for in-state students and \$1484 for out-of-state students. This does not cover classroom supplies, travel costs, and such personal expenses as clothes, laundry and recreation.

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## NAMES IN THE NEWS

**Dr. Lowell J. Reed**, recently retired president of Johns Hopkins University, Baltimore, has been appointed special consultant in the health areas of the University of Pittsburgh, according to Chancellor Edward H. Litchfield. The appointment will be effective during the period when Pitt is seeking a replacement for **Dr. Robert A. Moore**, vice chancellor for the health schools, who left September 30 to become president of the Downstate Medical Center of the State University of New York, Brooklyn.



Clyde F. McAlister

**Clyde F. McAlister**, for the last eight years business manager at Shorter College, Rome, Ga., resigned September 1 to accept appointment as assistant to the bursar at Douglass College, woman's division of Rutgers University. Prior to his work at Shorter College, Mr. McAlister was bursar at Gardner-Webb Junior College, Boiling Springs, N.C.

**Sam F. Brewster**, director of buildings and grounds and a member of the administrative council of Alabama Polytechnic Institute, Auburn, resigned recently to accept appointment as director of physical plant at Brigham Young University, Provo, Utah. Mr. Brewster's appointment became effective October 1.



Sam F. Brewster



Walter R. Kuhn

**Walter R. Kuhn**, business manager of Thiel College, Greenville, Pa., has been appointed treasurer and controller of the college, and also treasurer of the

board of trustees. **Robert M. Ewing**, formerly assistant business manager, is now business manager. **Dr. Frederick M. Binder**, dean, and **Dr. Robert S. Cope**, director of public relations and development, were named vice presidents of the college.

**Donald L. Cartland**, assistant controller of the A. B. Dick Company, has been appointed controller of the University of Chicago, according to **Glen A.**



Donald L. Cartland

**Lloyd**, chairman of the board of trustees of the university. Mr. Cartland's appointment became effective October 14. He succeeds **John I. Kirkpatrick**, recently named vice chancellor in charge of administration.



Marwin Wrolstad

**Marwin Wrolstad**, formerly chief of the methods and training division of the U.S. Armed Forces Institute, Madison, Wis., has been named assistant business manager at the University of Omaha. He succeeds **Richard Debus**, who resigned recently to become business manager of Russell Sage College, Troy, N.Y.

**Gov. Luther H. Hodges** of North Carolina was elected chairman of the Southern Regional Education Board at its annual meeting in September. Also elected were **Dr. Philip G. Davidson**,



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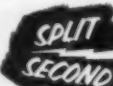
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Rev. Bro. James M. Kenny, S.J., director of purchases of Fordham University, New York City, has been appointed to the newly created position of business manager of service enterprises.



Rev. Bro. Kenny, S.J.

Brother Kenny, who was associated with the Wall Street firm of Dominion Securities, Ltd., before entering the Society of Jesus, went to Fordham in 1946 and was named director of purchases in 1949. An active member of the National Association of Educational Buyers and of the National Association of Purchasing Agents, he also is a member of the editorial advisory board of COLLEGE AND UNIVERSITY BUSINESS.

Ralph E. McCormack, formerly manager of the college store at West Texas State College, Canyon, has been named manager of the bookstore at Southwestern Louisiana Institute, Lafayette, La. He succeeds J. Stewart Bonnet.

Arthur E. Palmer has been named business manager of the College of Wooster, Wooster, Ohio. For the last 10 years Mr. Palmer has been in public utilities work in traffic engineering and personnel management of the New Jersey Bell Telephone Company.



Arthur E. Palmer

Russell V. Kohr, director of public information at Lake Forest College, Lake Forest, Ill., since 1955, has been named director of development for the college, according to a recent announcement by Ernest A. Johnson, president.

Leonard L. Wilson, director of admissions of Hastings College, Hastings, Neb., from 1954 to 1956, and a teaching fellow in politics and government at Boston University School of Public Relations last year, has been appointed



Russell V. Kohr



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director of public relations and alumni affairs at Illinois College, Jacksonville.

**Glenn W. Ferguson**, last year administrative assistant to **Edward H. Litchfield**, chancellor of the University of Pittsburgh, has been appointed assistant dean of the university's new graduate school of public and international affairs. Mr. Ferguson will work under **Dr. Donald C. Stone**, who recently resigned the presidency of Springfield College in Massachusetts to become dean of the new school.

**Walter Roth**, plant superintendent of the University of Michigan, recently announced the appointment of two assistant superintendents and the appointment of **Harold C. Hickman**, assistant superintendent since 1955, as head of the engineering department. **Foster L. Cross** has been named assistant superintendent in charge of operations and maintenance, and **Walter E. Kneer** has been appointed assistant superintendent for planning, scheduling and control. The operations and maintenance department includes the custodial, security and transporta-



Harold C. Hickman

tion sections, all plant shops, grounds operations, and maintenance of various university properties outside Ann Arbor.



Foster L. Cross



Walter E. Kneer

**Dr. Minard W. Stout**, president of the University of Nevada, Reno, submitted his resignation on October 5 following five years of controversy resulting in a number of faculty resignations and student riots. Dr. Stout requested that he be relieved of his office as of July 1, 1958.

**Merrill J. Holmes**, president of Illinois Wesleyan University, Bloomington, submitted his formal resignation October 22, to become effective at the close of the present fiscal year, next July 31. Dr. Holmes assumed the presidency of the institution on Feb. 22, 1947, filling the vacancy caused by the death of **Dr. W. E. Shaw**. **Dr. Lloyd M. Bertholf**, a vice president of the College of the Pacific, will succeed Dr. Holmes at Illinois Wesleyan.

**Jacob B. Taylor**, vice president of business and finance at Ohio State University, has resigned to accept an executive position with General Telephone Corp., which has its headquarters in New York City. His resignation was accepted "with regret" by the university's board of trustees. Dr. Taylor has been a member of the Ohio State University staff since 1927. He became chairman of the accounting department in 1930, was appointed business manager in 1946, was promoted to vice president in 1948, and was made treasurer in 1953.

**Edward H. Stromberg**, director of development and research at Northwestern University, is retiring after having served 27 years in various administrative staff positions.

**Dr. Orville Dahl**, former director of higher education of the Evangelical Lutheran Church, has accepted the presidency of the California Lutheran Educational Foundation. The foundation brings together five national Lutheran church bodies in a western regional cooperative program that is dedicated to the advancement of Christian higher education in California. The foundation is establishing a senior liberal arts college in the Los Angeles area.


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## DIRECTORY OF ASSOCIATIONS

### National Association of College Stores

President: F. J. Worthington, Princeton University Store, Princeton, N.J.; general manager: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 8-11, Biltmore Hotel, Los Angeles.

### College and University Personnel Association

President: Diedrich K. Willers, Cornell University; secretary-treasurer: Shelton F. King, Carnegie Institute of Technology;

executive secretary: Donald E. Dickason, University of Illinois, Permanent headquarters, 809 S. Wright St., Champaign, Ill.; Kathryn Hansen, editor, C.U.P.A. Journal. Convention: 1958, Purdue University.

### National Association of Physical Plant Administrators of Universities and Colleges

President: W. P. Wetzel, Temple University; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

Convention: April 28, 29, University of New Mexico, Albuquerque.

### National Association of Educational Buyers

President: J. S. Reaves, University of Florida; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 7-9, Leamington Hotel, Minneapolis.

### Association of College and University Housing Officers

President: William C. Wells, University of Maine; secretary-treasurer: Leonard A. Schadt, University of Michigan.

### National Federation of College and University Business Officers Associations

President: C. O. Emmerich, Emory University; vice president: Kurt Hertzfeld, University of Rochester; secretary-treasurer: G. W. Green, California Inst. of Technology.

### Associations of College and University Business Officers

#### American Association

President: William M. Jones, North Carolina College; secretary: S. V. Jeter, Clark College, Atlanta, Ga.

Convention: April 24-26, Willard Hotel, Washington, D.C.

#### Central Association

President: Parker Hall, University of Chicago; secretary-treasurer: Ralph Olmsted, Evansville College, Evansville, Ind.

Convention: May 4-6, Edgewater Beach Hotel, Chicago.

#### Eastern Association

President: John Schlegel, Lafayette College; secretary-treasurer: Kurt M. Hertzfeld, University of Rochester.

Convention: Dec. 1-3, Hotel Shoreham, Washington, D.C.

#### Southern Association

President: Claude M. Reaves, Huntingdon College; secretary: C. O. Emmerich, Emory University.

Convention: March 30-April 1, Statler Hotel, Dallas, Tex.

#### Western Association

President: Kenneth A. Dick, University of Idaho; secretary: Robert B. Gilmore, California Institute of Technology.

Convention: April 20-23, Highlands Inn, Carmel, Calif.

### Association of College Unions

President: George Donovan, Pennsylvania State University; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 20-23, Kellogg Center, Michigan State University, East Lansing.

### Canadian Association of University Business Officers

President: G. A. Grimson, controller, McGill University; secretary-treasurer: F. J. Turner, Carleton College.

Convention: June 5-7, McMaster University, Hamilton, Ont.

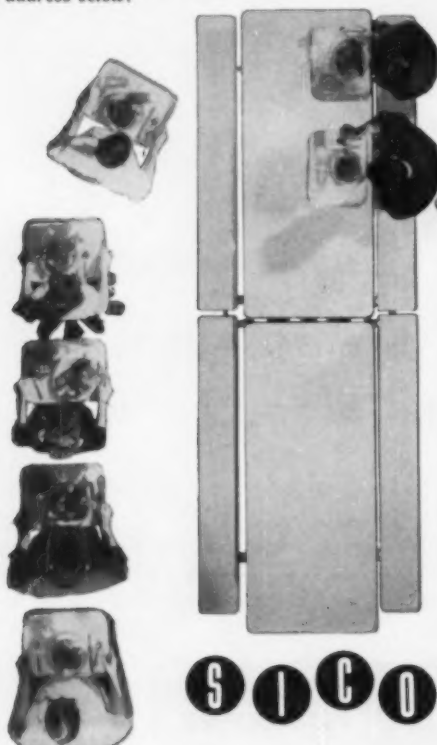
### American College Public Relations Association

President: James R. Jordan, State University of Iowa; executive secretary: W. Noel Johnston, 1785 Massachusetts Ave., Washington, D.C.

# 2WAYS

to save more space, time, money in multi-purpose areas. These Sico System units can provide more space and greater economy in your school. They will seat more children in less floor space because they were designed to meet needs outlined by school administrators. They offer utmost flexibility because they do not require permanent installation—no construction limitations. They permit areas to be speedily converted from one function to another because of their simple, easy and safe operation. They store in minimum space. Their construction (plastic tops, rounded edges, 14-gauge, plated steel frames) assure cleanliness and long, trouble-free service.

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**SICO B-Y unit.** 12 Ft. length seats 20. Exclusive Floating Fold eliminates all hinges, latches, locks, operates safely. Rubber wheels assure easy moving, protect floors. Perfect for lunchroom—gym and similar installations.

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**SICO TIP-TOP unit.** 6 Ft. length seats up to 12. Simple, safe folding action provides speedy conversion. Stores flat against wall or can be "nested" in minimum space. Ideal for confined areas.

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## The Insured TUITION PAYMENT PLAN

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## CLASSIFIED ADVERTISING

### POSITIONS WANTED

**Bookstore Manager-Purchasing Agent**—45 years old, college graduate, several years experience; also experience with university printing and public relations department. Write Box CW 311 COLLEGE AND UNIVERSITY BUSINESS.

**Business Manager, Treasurer, Administrative Assistant**—College, university, education board, foundation, etc.; eight years' experience all phases business office administration, including auxiliaries, maintenance; enjoys state board level systematizing, consultant, research, auditing type work; manuals; presently college business manager, 1400 enrollment; University Accounting Degree. Write Box CW 368, COLLEGE AND UNIVERSITY BUSINESS.

**Food Director**—Diversified experience in large volume operations, university and commercial. Write Box CW 369, COLLEGE AND UNIVERSITY BUSINESS.

**Superintendent of Buildings and Grounds**—Eleven years experience as superintendent in small college plus twenty years experience in maintenance, construction, planning, purchasing and supervision; engineering training; prefer southwest or west coast location in small college. Write Box CW 342, COLLEGE AND UNIVERSITY BUSINESS.

### POSITIONS OPEN

**Accountant**—Two positions available; excellent opportunity as senior accountant for young man with several years general accounting background, and as junior accountant for recent college graduate in the field of college accounting and business administration; salary open; you will have excellent advancement opportunities and liberal benefits plan; forward resumé to Mr. Fred Hodgson, Personnel Officer, STEVENS INSTITUTE OF TECHNOLOGY, Hoboken, New Jersey.

**Administrative Assistant**—A growing professional society serving the petroleum and mining exploration industries needs an administrative assistant with a knowledge of publishing and aptitude in sciences and mathematics; duties include mechanics of publishing quarterly scientific journal; starting salary \$400-\$450; Bachelor Degree required. Send letter of application with transcript and references to SOCIETY OF EXPLORATION GEOPHYSICISTS, Box 1536, Tulsa 1, Oklahoma.

**Architect**—Assist in campus planning and design of university buildings; do considerable liaison and consulting work with academic staff; write specifications; make preliminary drawings for new structures and working drawings for remodeling; supervise construction; good opportunity for increased responsibility; Wisconsin registration, or eligibility therefore, required; Write A. F. Gallistel, Director, Physical Plant Planning, UNIVERSITY OF WISCONSIN, Madison 6, Wisconsin.

**Assistant Business Manager**—Position available September in liberal arts college with opportunity for advancement to senior business officer; applicant should be graduate in business administration; some experience in

college business management preferred though not essential. Write Box CO 232, COLLEGE AND UNIVERSITY BUSINESS.

**Assistant Business Manager, Purchasing Agent**—Position available in Minnesota liberal arts college; opportunity for experience in all phases of college business management; applicant should be a college graduate; college administrative experience preferred though not essential. Write Box CO 240, COLLEGE AND UNIVERSITY BUSINESS.

**Assistant to Superintendent of Buildings and Grounds**—Degree in Engineering and experience in building maintenance and custodial supervision required; opportunity for advancement; age 25-40; privately endowed university in upstate New York. Write Box CO 244, COLLEGE AND UNIVERSITY BUSINESS.

**Assistant Treasurer**—General college business administrative position with duties of comptroller in small New England liberal arts college; accounting or college business management background or experience necessary. Write Box CO 239, COLLEGE AND UNIVERSITY BUSINESS.

**College Food Service Directors Needed**—Rapidly growing college food service contract feeding company is seeking high caliber young graduates; age 24-39; to assume management of college or university food service operations; character and personality more important than experience, but must have a feeling for quality; highest income in the field; opportunities unlimited; relocate your preference considered. Write Box CO 245, COLLEGE AND UNIVERSITY BUSINESS.

**Dietitian**—Top caliber ADA dietitian to work in menu and testing department of national catering company; relocate; must be personable and capable; top salary, benefits, working conditions. Write Box CO 237, COLLEGE AND UNIVERSITY BUSINESS.

**Director of Food Service**—College graduate; experience in food management desirable; this position is with well known middle west college; state salary expected. Write Box CO 241, COLLEGE AND UNIVERSITY BUSINESS.

**Food Service Director**—Successful administrator; B.S. Hotel and Institution Administration; M.S. Hotel and Restaurant Administration; experience in college union, dormitory, cafeteria, grill, catering and contract feeding; extensive knowledge of purchasing, stores, menu planning, service, accounting, budgeting, cost controls, labor and personnel development. Write Box CO 242, COLLEGE AND UNIVERSITY BUSINESS.

**Supervisor of Maintenance, Engineering and Remodeling Services**—For private, urban teachers college in northeastern U.S.; age 35-45; appointment to be made Spring, 1958; salary open; experience in planned inspection and preventive maintenance desirable; minimum 5 years experience in maintenance, engineering and/or remodeling work; college trained. Write Box CO 243, COLLEGE AND UNIVERSITY BUSINESS.

**Up a blind Alley???** No "dead-end" with this organization for the ambitious, capable young college grad food service man; expansion is a planned one-third of volume per year; enlightened personnel program; pleasant surroundings; pride of achievement. Write Box CO 247, COLLEGE AND UNIVERSITY BUSINESS.

The rates for classified advertisements are: 20 cents a word; minimum charge, \$4. (No charge for "key" number.)

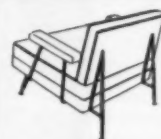
Forms close 25th of month preceding date of issue.

**COLLEGE AND UNIVERSITY BUSINESS**  
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desk  
if you must,  
but...*

... think twice before you turn her room into a cell. Fill it up with strictly make-do furniture and you scuttle her morale, maybe even ruin her academic chances. Figure "function", of course, but don't ignore good looks, homelikeness and warmth. These are intangibles as real to Betty Coed as the monthly check from home. Getting down to cases, CONTRACT-AMERICANA FURNITURE BY TROY makes sense—to you, primarily concerned with low initial cost, durability and ease of maintenance; and to her, the fashion-minded tenant in Dorm #1. CONTRACT-AMERICANA is a lobby-to-top floor collection, includes upholstered pieces for reception rooms and lounges as well as chests, desks and beds for upstairs. Complete information and prices may be obtained by requesting a copy of the illustrated CONTRACT-AMERICANA FOLDER. No charge, naturally, and no obligation.



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# BIG ROLE FOR U.S.C. CINEMA DEPARTMENT

**University Benefits From Greatly  
Extended Use of 35mm and 16mm  
Mitchell Motion Picture Cameras**

One of the most startling developments among the cinema departments of colleges and universities is the increased contribution which the campus film unit has made to the field of higher education.

A leading example is the University of Southern California where students using professional Mitchell motion picture cameras film a remarkable range of subjects. Films are created for classroom instruction, public relations, sports events, campus activities, scientific research, audience reaction research, entertainment, television and industry.

Mitchell cameras meet an extreme range of filming requirements. No other single camera has proven so flexible in use as these easy-operating, trouble-free 35mm and 16mm cameras which consistently deliver the highest quality film.

For information about Mitchell cameras, write today on your letterhead.

Widely diversified filming conditions are covered in instruction in which Mitchell cameras demonstrate their great flexibility.



Mitchell camera focuses on operating room as medical instruction film is made by Department of Cinema at U. S. C.



Peabody and TV "Emmy" award winner, Dr. Frank Baxter, being filmed for the education TV and Radio Center of Ann Arbor.



Students from all over the world attend U. S. C. to learn the latest techniques of 16mm and 35mm cinematography.



**\*85% of professional motion pictures shown in theatres throughout the world are filmed with a Mitchell**

# WHAT'S NEW

November 1957

Edited by Bessie Coveri

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 96. Circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

## Module Desk for Teachers or Dormitories

So designed that it can be used as a teacher's desk or for dormitories, the new



Module Desk comes in various detached units, including the basic table top and legs, a three-drawer pedestal, book cases, kneehole drawer and other parts. The basic frame is available in three sizes. The desk is also suited for use in special classrooms in secondary schools and colleges.

The book case units designed for the new desk can be assembled as an integral part of the desk, placed on the floor as separate book cases or hung on the wall singly or in double units. The desk unit is also available with brackets for attaching to the wall, facilitating floor maintenance. Royal Metal Mfg. Co., 175 N. Michigan Ave., Chicago 1.

For more details circle #98 on mailing card.

## Fountain and Sink Combined in One Unit

A two-bowl unit combining a stainless steel sink and drinking fountain offers the



double convenience of clean-up and drinking fountain service. The new Elkay combination is available in four models in overall sizes of 32 by 17, 34 by 16, 35 by 17 and 37 by 14 inches. Two models offer an oval drinking fountain bowl combined with rectangular bowl and one model has a round bowl. Bubblers are available on either the right or left hand side. Elkay Mfg. Co., 1874 S. 54th Ave., Chicago 50.

For more details circle #99 on mailing card.

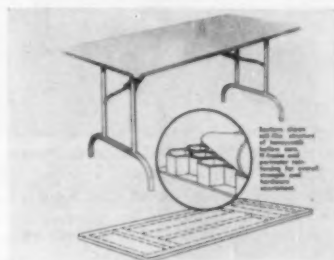
## Nylon Base Glides for Faultless Casters

High gloss finish is used on the new Nylon Base Glides introduced by Faultless. They move easily over floors and floor coverings without scratch, squeak or rust. In areas where climate or room conditions cause metal finishes to corrode, the nylon glides protect floor coverings. The glides have a tilting stem with 40 degree range of movement to assure flat set on floor, and are available with a variety of stems and sockets for applications on wood or metal furniture and equipment. Faultless Caster Corp., 1521 N. Garvin, Evansville 7, Ind.

For more details circle #100 on mailing card.

## All-Purpose Folding Table with Honeycomb Reinforced Top

The new Krueger all-purpose folding table features a lightweight, hard-surfaced top with a honeycomb core. The core is reinforced with a five-ply hardwood "H" frame flanked with basswood side members to provide a rigid, durable and solid anchorage for leg hardware. Welded steel tubing legs of 1 1/4 inch



diameter fold flat for storage and handles are incorporated for easier handling. Tops are available in brown tempered Masonite or tan-birch finished Resilyte plastic in 30 or 36 inches wide by 72 or 96 inches long. Standing height is 29 inches. Krueger Metal Products Co., Box 1097, Green Bay, Wis.

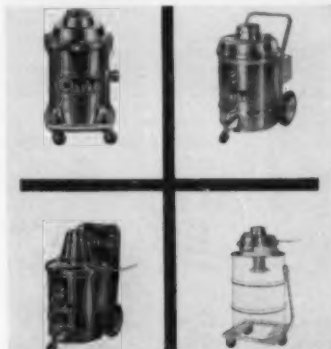
For more details circle #101 on mailing card.

## Vacuum Cleaner Line Is Re-Designed

Six all-new units are included in the complete new line of Clarke heavy duty wet-dry vacuum cleaners. Ranging from a 1/2 h.p. model with 2 1/2 gallon wet and 1/2 bushel dry capacity to a 1 1/2 h.p. giant conversion unit, the line has a number of new features. Included are stainless steel tanks, polished aluminum heads and job-designed turbines for extra powerful suction and fast operation. The new "feather-touch" push switch is easy to operate and

new clamp handles hold the head firmly on the tank and serve as convenient handles when lifting the head.

Other features make the new line exceptionally efficient in picking up dust,



dirt and liquids and they will clean virtually everything from floor to ceiling. A range of sizes is available with special, newly designed tools for practically every cleaning job. Clarke Sanding Machine Co., Muskegon, Mich.

For more details circle #102 on mailing card.

## Shadowal Block for Attractive Walls

Representing an interesting departure from ordinary concrete block, Shadowal Block has a pattern already built into its surface. When laid together in a wall, Shadowal Blocks form a virtually limitless number of attractive designs with three-dimensional effect. A new concept in exposed masonry construction, the blocks permit the development of decorative walls at little extra cost. Made with a three-eighths inch angled recess in the face of a modular eight by eight by sixteen-inch block, an interesting network of shadows is cast when light falls on the indented area.



Large wall expanses can be broken up with attractively patterned sections requiring little maintenance. Shadowal Block is durable, firesafe, sound absorbent and requires no finishing. If desired, however, it can be coated with transparent waterproofing or painted in a variety of colors. The National Concrete Masonry Association, 38 S. Dearborn St., Chicago 3.

For more details circle #103 on mailing card.

(Continued on page 80)



## What's New . . .

### Ceramic Tile Pattern in Colored Ceramic Mosaics

"House of Mystery" is the name given to a new ceramic tile pattern inspired by an



ancient Egyptian temple. The pattern is made up of colored unglazed ceramic mosaics in  $\frac{3}{4}$  inch squares interspersed with  $\frac{3}{4}$  by  $1 \frac{9}{16}$  inch oblongs. The attractive illustration shows use of the new pattern in a recently completed school. The Mosaic Tile Co., Zanesville, Ohio.

For more details circle #104 on mailing card.

### Enzymatic Greaseceptor Flushes Grease Away

The new Enzymatic Greaseceptor is a self-cleaning automatic grease interceptor. A specially-prepared enzyme concentrate called "Blue Label Enzymatic" is poured through a treatment port in the cover of the new Greaseceptor. By biochemical reaction the accumulated grease is converted into water-soluble compounds that automatically flush away into the drainage system. The chemical action eliminates possibility of damage to plumbing and there is no danger of redistributing grease in the drainage system.

The result of six years of research and testing, the new lipase-oxidase-type enzyme used with the new Greaseceptor helps to keep plumbing lines clean and clear. The new Enzymatic Greaseceptor requires no special installation and minimum maintenance. J. A. Zurn Mfg. Div., Zurn Industries, Inc., Erie, Pa.

For more details circle #105 on mailing card.

### Two TV Cameras at Unusually Low Prices

Two new television cameras for closed circuit systems are now available to schools



and other institutions at an unusually low price. The Ling Spectator is a completely self-contained unit with high light sensitivity and excellent stability which is listed

at less than five hundred dollars F.O.B. Dallas, Texas. The ten-pound camera consumes little space, requires no special television monitor and can be adjusted to any practical distance range by choice of lens.

The Electron Camera Kit is an easily assembled unit listed at less than four hundred dollars in Dallas. The kit produces a ten-pound, five-tube closed circuit camera. Instructions for assembling are given in a detailed manual permitting the kit to be used as a teaching unit. Both cameras are adapted for educational closed circuit television for teaching, monitoring and other activities in the school. Electron Corporation, 3512 Dyer St., Dallas, Texas.

For more details circle #106 on mailing card.

### Quiet Operation for Lightweight Vacuum

The new Kent Quiet Junior Vacuum weighs only 34 pounds and with the tri-cycle-type rolling gear and convenient tubular handle is easy to manage, either on the level or going up and down stairs. It provides the suction, air velocity and performance of larger machines, according to the manufacturer, yet is quiet, readily mobile and easy and economical to operate. The machine is equipped with disposable paper filter bags and has a fully adjustable



water shut-off. In addition to floors and rugs, the Kent Junior will clean mattresses, bed springs, venetian blinds, window sills, radiators and other areas. The Kent Co., 784 Canal St., Rome, N.Y.

For more details circle #107 on mailing card.

### All-Purpose Detergent Is Safe on Hands

Excellent cleaning properties, without harm to hands, are claimed for the new Kelite A-P-C all-purpose, concentrated powdered detergent. Described as 100 per cent active, with no fillers of any kind, the new detergent has high sudsing and suds-staying power and is safe for use on all ordinary surfaces, including aluminum and durable painted surfaces. Kelite A-P-C is soluble in hot, cold, hard, soft or saline water and is designed for cleaning floors and equipment. Kelite Corporation, 81 Industrial Rd., Berkeley Heights, N.J.

For more details circle #108 on mailing card.

### Storage Locker Has Flush Door Design

Recessed handle and ventilating louvers give the new Aurora personal storage lockers a flush door design, eliminating any protrusions. A three-way action latch incorporated into the design has a completely

retractable padlock loop and pre-locking feature, permitting the door to be locked while open and to lock automatically when



closed. The latch plate, serving as a padlock striking plate, protects the locker from scratches. The new line is available in flat or slope top in standard sizes, with closed base or without legs. Lockers are finished in olive green, gray or other baked enamel colors. Aurora Steel Products Co., 207 Third St., Aurora, Ill.

For more details circle #109 on mailing card.

### Shallow Fixture in Wakefield Troffer

The Wakefield Troffer is a new shallow, one-piece lighting fixture available in four sizes with a wide range of diffusers, including lenses, louvers and patterned vinyl. The new unit is offered in rapid start and slimline, flanged, snap-in or lay-in. The simplified, functional design gives a reflecting surface of 85 per cent. The Wakefield Co., Vermilion, Ohio.

For more details circle #110 on mailing card.

### Popcorn Machine Is Economically Priced

A small popcorn machine designed to help colleges make good profits on sales is now available in the Pop-A-Lot. The new machine is economically priced, yet has high production per hour for sales at athletic events and other campus activities. The folding door converts into a work shelf when opened. The case is satin-finished cast aluminum and all parts are mounted on a cadmium-plated steel plate. The fuse is easily moved around, yet is protected for safety. The unit is attractive in appearance with three colored Decals to

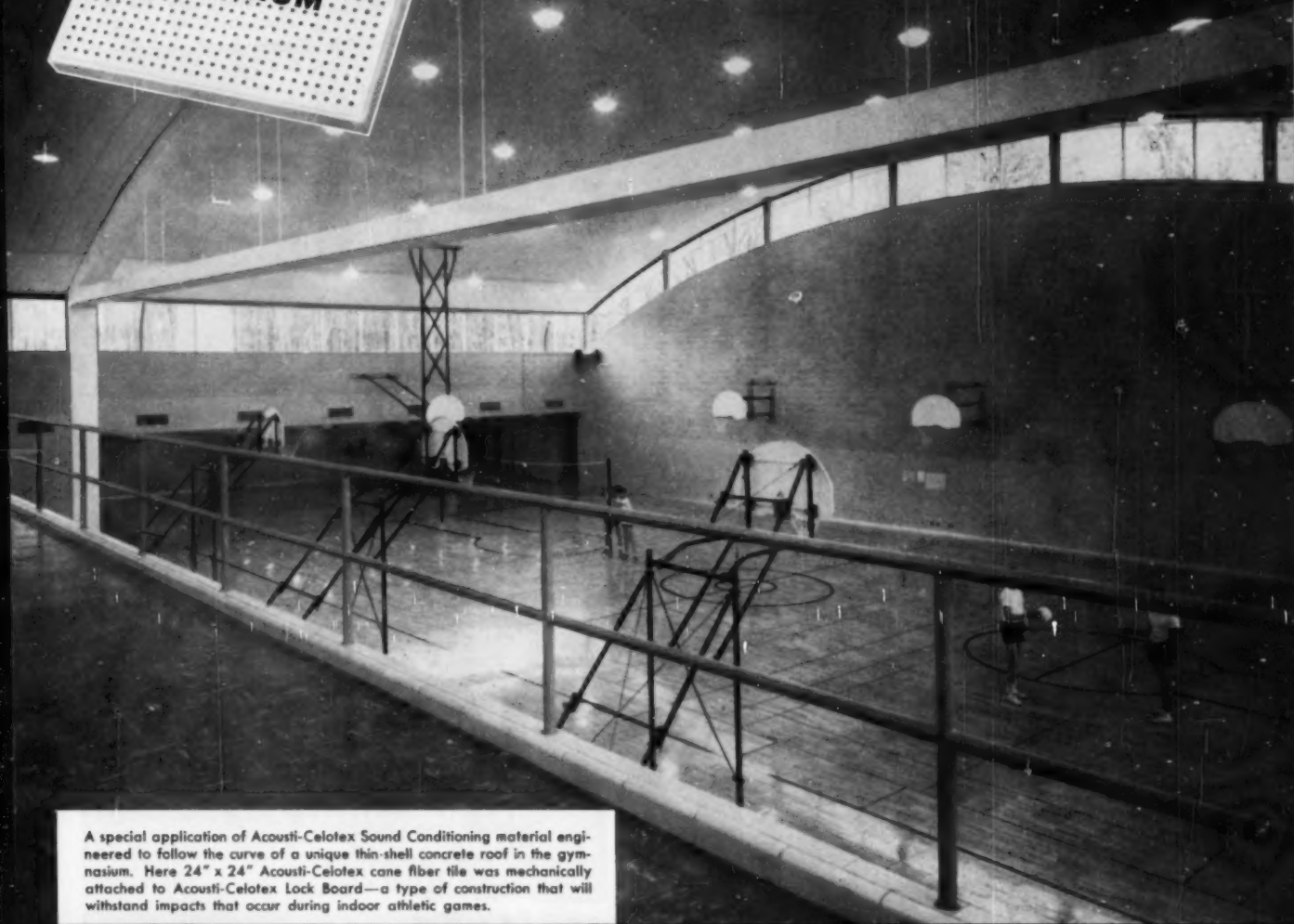


attract attention. Gold Medal Products Co., 318 E. Third St., Cincinnati 2, Ohio.

For more details circle #111 on mailing card.

(Continued on page 82)





A special application of Acousti-Celotex Sound Conditioning material engineered to follow the curve of a unique thin-shell concrete roof in the gymnasium. Here 24" x 24" Acousti-Celotex cone fiber tile was mechanically attached to Acousti-Celotex Lock Board—a type of construction that will withstand impacts that occur during indoor athletic games.

## Three (Quiet) Cheers for the Sound Conditioned College!

In a college gymnasium, where noise and reverberation can reach their most deafening heights, Acousti-Celotex Sound Conditioning has proven an effective, nerve-easing solution. In a sound-treated gym, instructors of gymnasium classes are more easily, more clearly heard. This method of noise-control, so efficient where noise problems are severest, can help produce excellent

results throughout all types of college buildings. A sound-absorbing ceiling of Acousti-Celotex Tile arrests unwanted sounds, provides better acoustics, in classrooms, corridors, auditoriums, study halls, cafeterias, lounges, gymnasiums . . . benefiting students and faculty alike. **Mail Coupon Today** for a free analysis of the noise problems in your institution, plus free booklet.



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Institution \_\_\_\_\_

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City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

## What's New . . .

### Latest Developments in Mimeograph Line



Latest engineering developments have been incorporated into the complete new line of A. B. Dick Company mimeographs. A special feature of all models is a new paper feed that handles unevenly cut or stacked paper, down to the last sheet. The Model 438 mimeograph illustrated, incorporating the new developments, will produce perfect copies in black or a variety of colors, on many sizes of paper or card stock. The new feed system is so carefully designed and constructed that the mimeograph can be reloaded while it is running and handles all weights of paper stock.

All of the new machines are available with either paste or fluid ink cylinders.

Re-inking is simplified with the closed cylinders. The new line includes two electric and two hand operated models, all at savings in cost. **A. B. Dick Co., 5700 W. Touhy Ave., Chicago 31.**  
For more details circle #112 on mailing card.

### Vinyl Asbestos Tile in "Terrazzo" Pattern

Ten pastel colors are available in the new "Terrazzo" vinyl asbestos tile recently introduced. The 9 by 9 by 1/16 inch tile can be used over almost any type of sub-floor as well as on walls. Terraflex tile is also available in marbleized, mottled and cork styles in 27 colors. **Johns-Manville, 22 E. 40th St., New York 16.**  
For more details circle #113 on mailing card.

### Closed-Circuit TV for Teaching and Monitoring

The G-E Monochrome Intra-Tel Closed Circuit Television System, Type TE-3-A, is designed for teaching and monitoring from remote locations. The high quality black and white television pictures are transmitted by means of coaxial cable or microwave. The basic system is housed in three cabinets or enclosures and includes the camera, the control unit and the monitor. A network of television receivers may be used for viewing at locations remote from

the teaching or monitoring areas.

Although the basic system has been available for approximately two years, an expanding group of accessories makes the system increasingly flexible and more adaptable to applications for teaching and training, observation of students, surveillance of areas inside and outside the buildings, data handling, microscope projection and other uses.

The low-cost, flexible unit is reliable, requires minimum space for the components and can be set up for many different uses. The Intra-Tel Camera takes pictures even under low light levels and will accommodate any 16mm lens with a "C" type mount. Small size and a minimum number of controls make it



easy to handle and to operate. The system is moderate in cost. **General Electric Co., Industrial Electronics Div., Electronics Park, Syracuse, N.Y.**  
For more details circle #114 on mailing card.

(Continued on page 84)

Institutions — Schools — Hospitals —  
Industrial Plants — Hotels — Caterers —  
Camps — Air Lines — Government — Civil  
Defense — Commercial Feeding Operations.

**THE "AERVOID" CENTRAL KITCHEN SYSTEM HAS PROVED ITS WORTH IN ALL FIELDS OF MASS-FEEDING**



AerVoIDs provide . . .  
Sanitary Vacuum Insulation -  
A positive Health Safeguard!

To-day's "Modern" trend toward centralization of food preparation is a milestone toward Economy, Better Quality and Higher Sanitary Standards.

Into this new picture nothing fits like AerVoid's Portable, Stainless-Steel, High-Vacuum Insulated, food, soup and liquid Carrier-Dispensers. AerVoIDs alone provide the proven quality and durability to survive under rough usage, spreading their cost over a long period of uninterrupted service.

All AerVoid Equipment, so indicated in our specifications is "In Compliance" with the sanitary construction requirements of the U. S. Public Health Service Ordinances and Codes.

Write for FREE Literature Kit CUB-01  
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A Dav-Son board for every job. Changeable letter directory and announcement boards, black boards, menu boards, others. Sturdily constructed, every Dav-Son board is built to last, with quality built-in for years of service.

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- Hardwood or Metal Frames
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- Indoor and Outdoor Styles
- Hardwood or Metal Frames
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**INSIST ON DAV-SON—YOUR BEST BUY!**

**Dav-Son Changeable Name Plate**  
Black card with white letters under beveled plexiglass shield. Triangular wood base in choice of Walnut, Oak, Mahogany, Blonde or Steel Grey finish. 10 1/2" x 3 1/4".

*Exciting* **NEW** *Design!*



*Thin-Line* **TABLE**

Here is the perfect compliment to smartly modern interiors—a beautiful new "CHF" table to match the trend to trim, neat styling. Available in the warm, distinctive glow of Bronze or in 20 decorator colors of cast iron lifetime porcelain enamel.

**ANYWHERE YOU LOOK "CHF" STOOLS AND TABLES ARE THE ULTIMATE IN QUALITY**

**CAST  
ONE-PIECE  
CONSTRUCTION**

Classic unbroken line from floor to seat. Strongest, longest lasting construction available.

**UNRIVALLED  
COLOR CHOICE**

Only at "CHF" will you find 20 colors of porcelain enamel, plus 4 metal finishes.

**AWARD  
WINNING  
DESIGNS**

Every year "CHF" equipment is featured in the majority of NFS Contest Award Winners.



**Write TODAY**  
for complete catalog

See award winning installations, plus many ideas for finer interiors plus the complete "CHF" line

DISTRIBUTORS IN ALL PRINCIPAL CITIES

**The CHICAGO HARDWARE FOUNDRY CO.**

"Dependable Since 1897"

31117 Commonwealth Avenue

NORTH CHICAGO, ILL.



design DNY-173. w. 21", d. 23", h. 30"

**UNEXCELLED**

*for simplicity,  
comfort  
and strength*



design DNY-173  
rear view.

127 years  
makers of  
chairs and  
tables for  
public use.

Write us about your seating needs. We will send appropriate illustrated material.

**THONET INDUSTRIES, INC., Dept. H**  
ONE PARK AVENUE, NEW YORK 16, N. Y.



**SHOWROOMS:** NEW YORK, CHICAGO, DALLAS, LOS ANGELES, MIAMI, STATESVILLE, N. C.



## What's New . . .

### Water Sterility Maintained With Ultra Violet Light

A built-in ultra-violet light assures continuous sterilization of contents in the new Barnstead distilled water storage tank. Mounted above the surface of the water, the light is set at a special frequency for the purpose. The new tanks are available in capacities from five to one thousand gallons, including vertical cylindrical and box-type tanks. **Barnstead Still & Sterilizer Co., Lanesville Terrace, Boston 31, Mass.** For more details circle #115 on mailing card.

### Bottle-Buster for Safe Disposal



The Vis-O-Lite Bottle-Buster offers a new safe, sanitary and efficient method of breaking and disposing of empty bottles and other glassware. The Bottle-

Buster breaks bottles and glassware into small pieces with the entire motor-driven operation being fully enclosed. This eliminates danger of flying glass, guards against splinters getting into food and reduces disposal space required for bottles. The unit will consume bottles up to 4 7/8 inches in diameter as fast as 300 per hour. **Vis-O-Lite Company, Inc., 128 Sidney St., St. Louis 4, Mo.** For more details circle #116 on mailing card.

### Scribo Chalkboard Has High Wearing Qualities

Superior wearing quality and excellent writing and erasing characteristics are claimed for the new Scribo Chalkboard. Scribo can be washed with water, thus simplifying maintenance. The result of



years of laboratory and market research, Scribo is manufactured by the Bestile Company, specializing in enamel and other coatings applied to wood or metal under high heat. Hardboard back panels are carried automatically through

(Continued on page 86)

sanding and coating machines and pass through bake ovens with controlled temperatures to produce the durable, resistant surface for school use. **The Bestile Mfg. Co., Ontario, Calif.** For more details circle #117 on mailing card.

### Clef Design on Band Chairs

A music clef gives a decorative and identifying design to chairs designed for musicians. The BTC Custom Musicians Chairs are available in a variety of colors to harmonize with school colors or band uniforms. The chairs are sturdily constructed with upholstered



backs on which the clef or other special school design is placed. **The Brewer-Titchener Corp., Cortland, N.Y.** For more details circle #118 on mailing card.



## Trim Line

*New simplicity of design achieves style, comfort and classroom efficiency with strength to pass the test of time.*



WRITE FOR COMPLETE CATALOG OF TUBULAR STEEL FURNITURE  
Patents are pending on all the pieces of the Heywood-Wakefield Trim Line design. Heywood-Wakefield, School Furniture Division, Gardner, Mass. and Menominee, Mich.

## The Helpful Jan-i-San...

**YOUNGS Multi-Use Utility Cart Saves Hours of Housekeeping Time**

Cut housekeeping costs through faster collection of trash and wastepaper. Wheel the Jan-i-San from room-to-room . . . toss the trash into the canvas bag (it holds 5 full bushels) . . . and roll on. 10" wheels roll easily through narrow doorways and over curbs. The Jan-i-San's sturdy steel platform supports the load. Dustpan, brushes, cloths, and a broom are held ready for use on handy brackets. And with no extra attachments you can do all the things shown below:



Gather Soiled Linen

Move Supplies

Janitor Service

Handle Rubbish

*Folds for storage, too!  
Write for our complete catalog.*

**THE PAUL O. YOUNG CO. LINE LEXINGTON, PENNA.**



# HUNTINGTON

## offers you this HELPFUL NEW MANUAL

... every buildings  
and grounds supervisor  
should have it! Helps  
improve sanitation and  
maintenance methods.



## *Cost Saving Techniques*

**PROVED IN INSTITUTIONAL USE . . . ALSO SHOWS  
MANAGEMENT METHODS FOR SUPERVISION AND COST CONTROL**

If you're sometimes stumped over building maintenance problems, this manual will help you. Here you'll find the techniques developed by two outstanding authorities. The co-authors are J. Lloyd Barron, Director of Sanitation for the National Biscuit Company, and Albert J. Burner, Supervisor of Cleaning Standards of The Port of New York Authority. It is further authenticated by the committee of specialists of the Association of American Soap and Glycerine Producers, Inc., under whose direction this work was prepared. Every phase of institutional housekeeping is discussed from management's viewpoint.

We consider the manual so important to institutional supervisors that we are making it available without cost or obligation. A letter to any of our offices will bring the manual "Building and Equipment Sanitation Maintenance Principles and Practices." It gives your men genuine help in developing cleaning techniques.

**HUNTINGTON  LABORATORIES**  
INCORPORATED

Huntington, Indiana • Philadelphia 35, Pa. • Toronto 2, Ontario

- Cleaning as a Part of Sanitation and Building Maintenance
- The Nature of the Cleaning Problem
- Types of Cleaning Materials
- Fitting the Cleaner to the Need
- Organizing the Cleaning Program
- Determination of Cleaning Costs
- Modern Sanitation Programs

### GET THIS VALUABLE BOOKLET FREE

Huntington Laboratories, Inc.  
Huntington, Indiana

Please send me a copy of the free manual, "Building and Equipment Sanitation Maintenance Principles and Practices."

NAME

TITLE

SCHOOL

ADDRESS

CITY

STATE

## POWERFUL NEW PLUNGER CLEARS CLOGGED TOILETS IN A JIFFY!



Clear messy, stuffed toilets  
Cut maintenance costs with

### 'TOILAFLEX' Toilet ALL-ANGLE Plunger

Ordinary plungers don't seat properly. They permit compressed air and water to splash back. Thus you not only have a mess, but you lose the very pressure you need to clear the obstruction.

With "TOILAFLEX", expressly designed for toilets, no air or water can escape. The full pressure plows through the clogging mass and swishes it down.

Order a "TOILAFLEX" for your own home too.  
Positive insurance against stuffed toilet.

**\$265** Fully  
Guaranteed

Order from your Supplier of  
Hardware or Janitor Supplies

- Accordion-action design to flex at any angle
- Double-size cup blasts double pressure, aimed directly at obstruction
- Tapered suction-grooved tail gives air-tight fit

THE STEVENS-BURT CO., NEW BRUNSWICK, N. J.  
A Division of The Water Master Company

## What's New . . .

### Room Darkener "Blacks Out" Skylight

The Mackin Skylight Room Darkener was developed to cover skylights when the classroom or auditorium needs darkening for audio-visual purposes. The simply-engineered, economical unit is easy to install. It consists of a series of interlocking panels, set in a grooved



sliding track, which open and close easily. They are custom built from stock components to the exact dimensions of any skylight opening. Built of formed steel, hardboard and aluminum, the darkeners are durable and sturdy and are available in 16 decorator colors. Mackin Venetian Blind Co., 300 W. 6th St., Moline, Ill.

For more details circle #119 on mailing card.

### Du Mont Closed-Circuit TV Available for Every Need

Allen B. Du Mont Laboratories has entered the closed-circuit television field with a complete line of equipment designed to fit every need. The flexible line includes two models of vidicon camera equipment in two price ranges. Completely installed systems utilize the self-contained TC-100 camera or the deluxe TC-200 camera equipment, according to price and other requirements.

The new line is designed to permit additions of remote controls for focusing,



light variations and lens changes to the original camera. The optional controls are designed to fit inside the basic cameras. All accessories and components are fully integrated in the systems and include all elements required for an active closed-circuit television system. Allen B. Du Mont Laboratories, Inc., 750 Bloomfield Ave., Clifton, N.J.

For more details circle #120 on mailing card.

(Continued on page 88)



### LABORATORY FURNITURE

Our representative will gladly assist in any problem you may have . . . or if you prefer, write for our illustrated catalog.

**FREE**

For more than sixty years Peterson furniture has set the pace for style and design. Peterson engineers and leading educators, studying together the requirements of school furniture under actual working conditions, have built into each piece of equipment a quality and workability that has made Peterson the leading choice of educators for many years.

LEONARD PETERSON & CO., INC.

1228 FULLERTON AVENUE CHICAGO 14, ILLINOIS

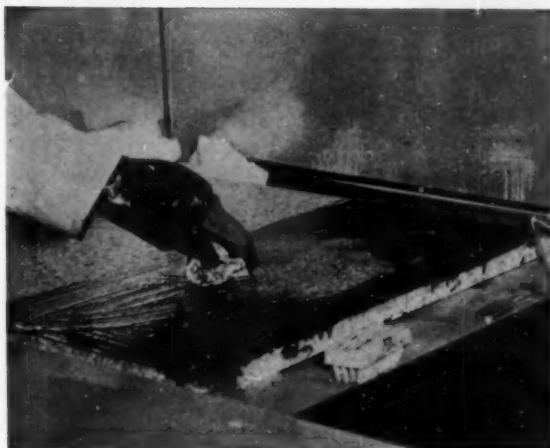
# HOW CLEAN

does a cleaner  
get your floors?



## RADIOACTIVE ISOTOPES PROVE "Soil Removal was Complete" with HILLYARD SUPER SHINE-ALL!!

New Atomic Age precision testing, never before possible, measures the dirt-removing ability of this great Floor Cleaner, with submicroscopic accuracy. Here's the test, conducted at Hillyard's request by a nationally known independent testing laboratory.



Sticky "synthetic soil" was smeared on panels of asphalt tile and terrazzo flooring. This dirt had been thoroughly fortified with Radioactive Isotope Carbon 14. Readings taken with the Laboratory's Ultrascaler (large commercial Geiger counter) fixed the exact amount of soil on panel.



The panels were then cleaned with SUPER SHINE-ALL, following manufacturer's directions; and readings were again taken with the Ultrascaler.

## RESULTS? FANTASTIC!

HERE IS THE LABORATORY'S OFFICIAL REPORT:

Synthetic Soil.....99.0% soil removal  
Asphalt Tile Flooring.....99.2% soil removal  
Terrazzo Flooring.....

Natural Soil  
"Soil removal with Super Shine-All was complete"

"No deleterious effect on either flooring . . . Super Shine-All is recommended for use in any institutional field."

ST. JOSEPH, MO.



Ask your nearby Hillyard Maintaineer®—he's a trained floor maintenance expert—for a FREE DEMONSTRATION of "Years Ahead" Super Shine-All on your floors on your staff . . . not your payroll



Mail Coupon Today!

HILLYARD, St. Joseph, Mo.

E-3

Please have the Maintaineer near me demonstrate SUPER SHINE-ALL on my floors, without charge or obligation.

Name.....

Firm.....

Address.....

City.....State.....

## What's New . . .

### Nesting Chair Saves Storage Space

The new Raylen Nesting Chair solves the problem of storing chairs when they



are not in use as several may be stacked together in minimum space. Two styles are available, with or without armrests, and either can be stacked mixed or separate. Over 200 chairs need only 504 cubic feet of storage space, according to the manufacturer. The new nesting chair is available in four colors: blonde, mahogany, ebony and walnut. Raylen Mfg. Co., 221 Broadway, Denver, Colo.

For more details circle #121 on mailing card.

### Year-Round Ventilator Has Several Improvements

The Herman Nelson HerNel-Cool II,

1957 model classroom year-round air conditioner, has a number of basic improvements over the earlier model. The Herman Nelson Draft/Stop system of controlling window downdrafts is incorporated in the new model. A new cleanable "drain collector" beneath the piping connections collects condensate and larger end panels give easier access for servicing. The new modulating by-pass damper control has a continuously cold-cooling element for better humidity and odor control.

The 1957 model HerNel-Cool II may



be installed for use as a unit ventilator to provide automatically controlled winter heating, all year ventilating and ventilating cooling, plus the Draft/Stop feature. If summer air conditioning is desired, the addition of a water chiller in the boiler room converts the system for hot weather cooling. The unit is available in a complete range of color combinations. American Air Filter Co., Inc., 215 Central Ave., Louisville 8, Ky.

For more details circle #122 on mailing card.

(Continued on page 89)

### Dri-Hot Plate Facilitates Hot Food Service

A special cast alloy Dri-Hot disc is heated in a 450-degree oven for 15 minutes to keep food hot until served in the Dri-Hot Plate. The heated disc is placed in the stainless steel plate holder, the china plate with the complete hot meal assembled is put in the holder and covered with the stainless steel cover. Food is kept hot and tempting in the unit for as long as an hour and a half, according to the report. The new Dri-Hot Plate is available to fit tray plates 7 1/4 to 9 1/4 inches in size.

The Dri-Hot Plate system keeps food hot without electricity, gas or complicated apparatus, once the Dri-Hot disc is heated. A special handle makes it easy to put the heated disc in the plate. Legion



Utensils Co., 40th Ave. & 21st St., Long Island City 1, N.Y.

For more details circle #123 on mailing card.



### Here's a desk for ALL sizes!



No. 445 High-School and College Desk

The "445" is the one desk that handles the "big ones," "little ones," and "normal size" students as well—in Grades 7 through 12, and college. Roomy, steel-pylon construction and variable heights of top and seat are the secrets. Send for our newest full-line catalog today.



Grand Rapids 2, Michigan

WORLD'S LEADER IN PUBLIC SEATING

### Lather • Fragrance • Safety

Premium antiseptic liquid soap

*Balmaseptic*

For washroom and shower  
Contains Hexachlorophene

Clear, brilliant Balmaseptic rubs up quickly into handfuls of fragrant lather. Cleanses energetically, yet does not irritate the skin—does not chap. Regular use keeps the hands surgically clean: the HEXachlorophene puts the HEX on bacteria. Balmaseptic dispenses neatly—stores perfectly: does not turn cloudy or rancid, regardless of climate. Exceeds forthcoming U.S.P. Specifications for Hexachlorophene liquid soap

For free sanitary survey  
of your premises ask  
your Dolge service man





## What's New . . .

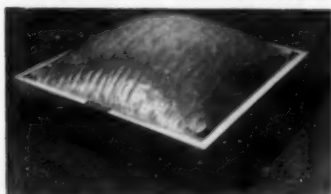
### Polished Plate Glass in Neutral Gray

Glare and brightness reduction are combined with heat absorbing advantages in the new Parallel-O-Grey Polished Plate Glass. The new glass is twin ground, assuring relative freedom from visible distortion. The lower light transmission provides comfortable eye conditions in the classroom. The pleasing color and uniformity of quality assure transmission of true colors. With the new gray glass more glazing can be used in school construction without the problem of excessive glare and brightness. Libbey-Owens-Ford Glass Co., Toledo 3, Ohio.

For more details circle #124 on mailing card.

### Solatex Silver for Controlled Overhead Daylight

Solatex Silver is a new material developed to provide controlled daylighting



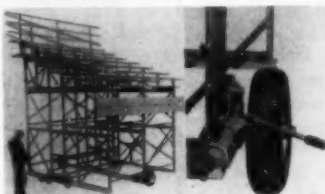
in skylights. Glare and objectionable heat are controlled as are the variations

in light at different hours of the day. The material was developed for use in Wascolite Reflectadomes which are available in sizes ranging from 20 by 20 to 99 by 119 inches.

The Reflectadome employing Solatex Silver picks up and bends in low angle sunlight and reduces light and heat when the sun is high. Maximum diffused light with minimum heat transmission or heat loss are features of the new Reflectadome. Wasco Products, Inc., Bay State Rd., Cambridge 38, Mass.

For more details circle #125 on mailing card.

### Hydraulic System for Portable Bleachers



The new hydraulic movable "All-Steel" Portable Bleachers developed by Berlin Chapman feature a hydraulic moving system. A few short strokes of the handle attached to the hydraulic system readies the bleachers for transport to place of use or storage. Berlin Chapman Company, Berlin, Wis.

For more details circle #126 on mailing card.

(Continued on page 90)

### Heating-Cooling Thermostat Has Positive Cycle Changeover

The new Powers Type H-C Thermostat eliminates uncomfortable delays in adjusting air conditioning systems to meet daily and seasonal needs. The



positive changeover thermostat is designed for use with pneumatically controlled air conditioning systems in institutions and acts rapidly and positively when changed from heating to cooling. A single ball double seat air valve mechanism provides 100 per cent larger air capacity for fast repositioning of the control valves or dampers without using amplifying relays. The thermostat is used with pneumatically controlled air conditioning systems in colleges and other institutions. Powers Regulator Co., 3434 Oakton St., Skokie, Ill.

For more details circle #127 on mailing card.

**WATER SAVINGS**  
Up to **60%**  
**SHOWER HEAD**  
**AERATES SPRAY**  
**WORKS**  
**ON LOW**  
**PRESSURE**

No. 9-100

### "BUBBLE-STREAM" PUSHES COSTS DOWN!



The inexpensive Bubble-Stream shower head puts every drop of water to work: first to form an abundance of lathery suds quickly with lighter soaping; then to flush away dirt and soap faster with less water. Shower time is reduced. Water is saved. Heat is saved. Hard water feels soft. Ball joint provides instant adjustment of spray angle.

**WRIGHTWAY**  
**ENGINEERING CO.** Order through your supplier or direct.  
339-41 W. 112th PL. • CHICAGO 28, ILLINOIS  
Mfr's. of "BUBBLE-STREAM" Aerating Devices

## BLICKMAN SAFETY ENCLOSURES

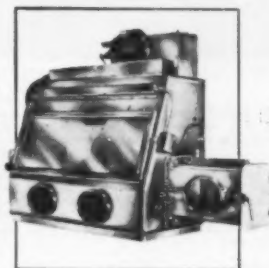
### Stainless steel enclosures for handling hazardous substances

SAFETY is the prime factor in this newly-designed special-purpose equipment. These new enclosures make it easier and safer for the laboratory technician to work with contaminants, infected animals and micro-organisms, toxic chemicals, poisonous and radioactive substances and live viruses. Stainless steel construction features crevice-free surfaces and rounded corners for ease of cleaning and decontamination. For full information send for technical bulletins or describe your particular problem. Write to S. Blickman, Inc., 2811 Gregory Avenue, Weehawken, N. J.

### MICRO-BIOLOGICAL SAFETY CABINET

with micro-biological  
filter canister

Filter canister may be back or top-mounted. Cabinet equipped with fluorescent lamps, cold cathode sterile light, service connections, electrical panel box with switches. Safety glass viewing window hinged to sloping front. Available in either 36" or 48" lengths. Other sizes, if desired. Air lock and stand optional.



### BLICKMAN Safety Enclosures

Look for this symbol of quality



## What's New . . .

### RESERVED PARKING with WESTERN PARKING GATES



**Absolute Control**—Western Parking Gates are electrically operated and therefore are so flexible, so dependable, so easy to operate, they assure absolute control of college and university parking lots . . . either for Reserved Parking for Staff . . . or Revenue Parking for Visitors' Use.

**Keys, Electro-Cards, Coins, Tokens**—Introduction of electro-card system gives college and university officials a complete range of selection. Keys, electro-cards, coins, or tokens independently, or in combination, will operate the gates. Labor costs are entirely eliminated. Initial cost is low. Installation is easy. Almost no maintenance.

**Features**—Western, builder of more than 10,000 railroad and highway crossing gates, has engineered into the gates such exclusive and special features as the "Lot Full" sign, electric opening and closing treadles, double key controls for day and night parkers, electro-cards with period changes, push-button remote controls, automatic counters, and others.

WRRS Parking Gates Will Be Shipped to Any College or University in the U. S. on

#### OPEN ACCOUNT

Subject to Complete Satisfaction of School Management.



Photos: L.S.U. Medical School, New Orleans, La.

#### WRITE TODAY

For descriptive folder detailing information on the various parking lot control plans available for your application.

#### SEND US

A brief description of your lot including dimensions, preferred locations for entrances and exits and a general idea of how you want to control parking. You will receive, without obligation, a parking plan and cost estimate.

6394



**WESTERN INDUSTRIES, INC.**

Electric Parking Gate Division

2416 South Ashland Ave., Chicago 8, Ill.  
IN CANADA: Cameron, Grant Inc., 405 St. John St., Montreal 1, Quebec

### Acoustical Corridor Ceiling Provides Utilities Chamber

A utilities plenum chamber is provided beneath standard long span roof desks with the new Fenestra Acoustical



**Corridor Ceiling.** The false ceiling consists of a 12-foot long acoustical metal pan of 18 gauge steel construction with the Fenestra patented arched acoustical pad as the sound absorbing medium. "Fenacoustic" is 12 inches wide and 1 1/4 inches deep, each section constructed to support its own dead weight and a 20-pound concentrated light fixture load at mid span. "U" clips over the flanged upstanding legs permit easy installation and removal of the units which provide an acoustical surface similar in texture to Fenestra long span acoustical panels. The metal surface is easy to clean or repaint. Fenestra, Inc., 2250 E. Grand Ave., Detroit 11, Mich.

For more details circle #128 on mailing card.

### Air Diffusing Grilles Are Easily Installed

The new line of extruded aluminum Linear Type Air Diffusing Grilles introduced by Titus are quickly and easily installed by snap spring clips. They operate efficiently for diffusing air in ceilings, sidewalls or floors and are rugged enough for the steady wear and tear of floor or window sill installations. The attractive design makes them suited to almost any type of application. Titus Mfg. Corp., Waterloo, Iowa.

For more details circle #129 on mailing card.

### Janitor Service Cart Is Easy to Handle



The new Lexco Econo-Cart employs a tubular steel frame equipped with two 2 1/2-inch composition wheels which allow the unit to move easily over all floor surfaces. The white five-bushel capacity

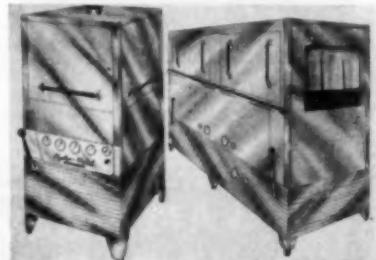
bag is suspended from the frame on movable hooks for easy replacement and removal of the bag. A fire resistant olive drab bag is available at additional cost. Lexco Engineering & Mfg. Corp., P.O. Box 161, Colmar, Pa.

For more details circle #130 on mailing card.

### Steel and Aluminum in Automatic Dishwashers

The new 1957 Clean-Lined Hydro-Wash Automatic Dishwasher line is constructed with stainless steel cabinets combined with aluminum panel skirts. Discoloration is not a problem with the new units and the attractive clean lines of the styling are functional and practical. All models have large removable panels which allow easy accessibility to all internal parts for service and maintenance. The snap-on connections of the spray manifolds can be easily removed or cleaned. All parts are handy for inspection or adjustment and residue troughs and scrap trays are instantly removable for cleaning.

Two of the seven models offered in the new line are illustrated. The space-saving cabinet type shown handles up to



1800 dishes per hour. The larger eight-foot double tank, completely automatic conveyor model will handle up to 7500 dishes per hour. Intermediate sizes are available for every institutional dishwashing requirement. Peters-Dalton, Inc., 17900 Ryan Rd., Detroit 12, Mich.

For more details circle #131 on mailing card.

### Portable Table and Bench in Low Cost Unit

The "Flexo-Fold" is the name given to a new portable table and bench unit. Low in cost but constructed for rough usage, the new unit is 12 feet long when extended. Tables and benches are permanently attached to a channel steel carrier equipped with rubber casters for easy and quiet mobility. Understructures are of tubular steel and the entire assembly is welded. Tops are of 3/4 inch Philippine mahogany plywood core with high-pressure laminated plastic in colorful wood grain patterns on the top surface of the tables. Tables are edged in stainless steel permanently attached. Schieber Sales Co., 12955 Inkster Rd., Detroit 39, Mich.

For more details circle #132 on mailing card.

(Continued on page 92)

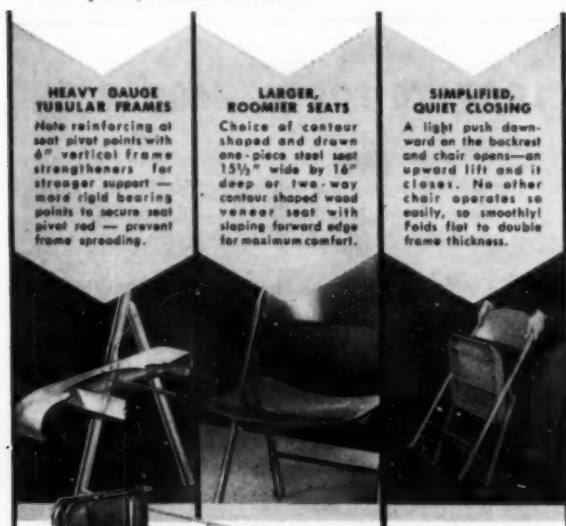
**Check this modern chair!**

... and know why  
**Krueger's Series 100**  
gives you  
better performance  
at lower cost!



**FOR SIZE, COMFORT AND SERVICE THIS CHAIR MEETS ALL REQUIREMENTS**

One of the most comfortable folding chairs of all—and certainly the *best value* per dollar expenditure! Strong, rigid and durable, its electrically seam-welded tubular steel frame is specially designed and constructed to provide many years of the hardest kind of usage. Unusually safe, too, there are no sharp edges, corners or exposed mechanisms to pinch the occupant or tear one's clothing — no danger of chair accidentally tipping if seated well forward or far back. Beautifully finished in Beige, Azure Grey or Saunders Green baked-on enamel. Steel or wood veneer seats. Write for new special, detailed brochure.



**HEAVY GAUGE TUBULAR FRAMES**

Note reinforcing at seat pivot points with 4" vertical frame strengtheners for stronger support — more rigid bearing points to secure seat pivot rod — prevent frame spreading.

**LARGER, ROOMIER SEATS**

Choice of contour shaped and drawn one-piece steel seat 15½" wide by 16" deep or two-way contour shaped wood veneer seat with sloping forward edge for maximum comfort.

**SIMPLIFIED, QUIET CLOSING**

A light push downward on the backrest and chair opens — an upward lift and it closes. No other chair operates so easily, so smoothly! Folds flat to double frame thickness.



Write

For new, complete line catalog No. 600 as well as brochure 100.

**KRUEGER**  
METAL PRODUCTS • GREEN BAY • WISCONSIN

Vol. 23, No. 5, November 1957



**Mr. Treasurer!**

Are you satisfied with your Student Refund program?

Aren't fees returned or adjusted an unproductive expense?

Couldn't you put this money to better use?

Would you consider a plan that would refund fees without cost to your college?

Our original Tuition Refund Plan, now in use in 337 schools and colleges, refunds the value of class time lost because of sickness or accident.

The newer Broad Form of the Plan, available now in the majority of states, extends this protection to cover withdrawals and dismissals for almost every reason. This Plan can supplement yours or replace it entirely.

The low cost of each Plan is paid by the student and costs the college nothing.

As specialists in educational insurance for twenty-eight years, we are well qualified to design a plan to suit you. We should know the number of your students of both sexes — day and resident, the terms of your enrollment contract and the amount of your fees.

Write to us, enclosing your catalog, please.

**The  
TUITION REFUND  
PLAN**

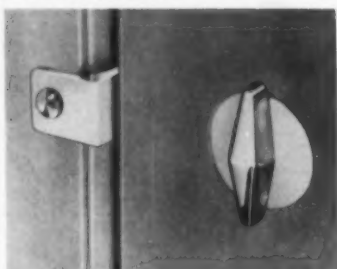
**A. W. G. DEWAR**  
INCORPORATED

*Educational Insurance Underwriters*  
141 Milk Street, BOSTON 9, Massachusetts  
625 Market Street, San Francisco 5, California  
10 South Tenth Street, Richmond, Virginia



## What's New . . .

### Concealed Latch for Toilet Partitions



Type 8800 Concealed Door Latch is a modern latch for toilet partitions with mechanism completely concealed within the door. The only exposed part is an attractive escutcheon plate and operating handle. The new latch is tamperproof, requires no maintenance or lubrication, and is quickly installed. The cam-action principle gives easy, silent operation without the use of springs and the recessed face and handle escutcheons facilitate cleaning. Sanymetal Products Co., Inc., 1676 Urbana Rd., Cleveland 12, Ohio.

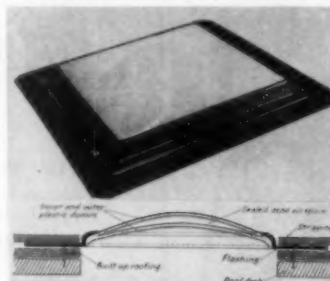
For more details circle #133 on mailing card.

### Minimum Heat Transfer With Consolite Skylight

Heating and air conditioning losses are greatly reduced with the new Consolite

Skylight. The twin-domed all-plastic skylight has a "thermos bottle" type construction. The dead air space between the sealed inner and outer domes acts as an efficient insulator, keeping heat in and cold out in cold weather and the reverse in hot weather.

Consolite Skylights are formed completely of fiberglass reinforced structural plastic, making it light in weight, easy to install, but extremely strong. The



self-flashing model illustrated is designed for long, maintenance-free usefulness. The cross-section drawing illustrates the construction and the light transmission without significant heat transfer which also eliminates interior condensation. Resolite Corporation, Zelienople, Pa.

For more details circle #134 on mailing card.

### WP Reversal Negative for Duplicating

Office offset work is simplified through use of the new WP Reversal Negative and plate-making time and costs are cut. The new material and technics can be economically used in colleges and schools operating their own duplicating department or small print shop, according to the report.

The new Ampto Waterproof Reversal Thin Film produces a high-contrast negative film copy of any original material. Exposure can be made in virtually any exposure units in minimum time. The new materials and technics permit taking paper print proofs without press make-ready; reduction of opaquing



time and costs; use of the same process to make inexpensive photocopies, and the making of offset plates. Ampto, Inc., Hicks Ave., Newton, N.J.

For more details circle #135 on mailing card.

(Continued on page 93)

...of the many teachers' desks\*  
only **One**  
stands out.....



*Designed to balance  
your school budget!*

It takes Haskell budget know-how to give you more value for every school dollar you invest in teachers' desks. More built-in quality, more comfort, more beauty including colors—all pays off! Happier teachers! Better teaching!

\*ASAU—See current edition of American School & University for details or write Haskell . . .

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TO REMEMBER

## LOOKING FOR SOMEONE?

Someone to fill a vacancy in your staff—a Business Manager—Superintendent of Buildings and Grounds—Purchasing Agent—Director of Food Service and Dormitories?

Or maybe you are thinking about making a change.

If so, consider placing a "Classified Advertisement in the next issue of College and University Business.

It costs but 20c a word (minimum charge of \$4.00) to place your story before the administrative officers of colleges and universities in this country and Canada.

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**WRITE TO: Classified Advertisements**

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## What's New . . .

### Literature and Services

• The 50th Anniversary Folding Tables Catalog #350 from The Monroe Company, 77 Church St., Colfax, Iowa, has colored illustrations and presents over 60 models, sizes and finishes of chairs, folding chairs, movable partitions, room dividers, folding risers, platforms and stages.

For more details circle #136 on mailing card.

• U/R Plumbing Fixtures for schools, public buildings and other commercial installations is the subject of Form No. 57 available from Universal-Rundle Corp., New Castle, Pa. Featured in the four-page folder is the fixture line of lavatories, water closets, drinking fountains and urinals.

For more details circle #137 on mailing card.

• Information on Baseduct, a new combination multi-outlet assembly and surface raceway system of electrical wiring at the baseboard level, is presented in a new bulletin. The four-page booklet is available from National Electric Product Corp., Two Gateway Center, Pittsburgh 22, Pa.

For more details circle #138 on mailing card.

• The Penco Line of Steel Cabinets is the subject of Bulletin SE-6 available from Penco Metal Products Div., Alan Wood Steel Co., 200 Brower Ave., Oaks, Pa. Items described in the booklet include steel cabinets, wardrobe cabinets, desk-height efficiency and counter-height utility cabinets, combination cabinets and tool cabinets.

For more details circle #139 on mailing card.

• The problems confronting the school library system and how they can be better understood is described in a new color motion picture, "Planning A School Library," prepared by the Remington Rand Div., Sperry Rand Corp., 315 Fourth Ave., New York 10. The 23-minute 16mm film covers the purpose and use of furniture, correct space allocation, arrangement of equipment and the need for correct lighting and floor coverings.

For more details circle #140 on mailing card.

• Bulletin 66, "The ABC of Fire Protection," is a 36-page illustrated booklet offered by the "Automatic" Sprinkler Corporation of America, P.O. Box 360, Youngstown 1, Ohio. In addition to descriptive information on the complete range of fire protection equipment manufactured by the company, there is an explanation of the insurance savings and other economic benefits resulting from fire protection.

For more details circle #141 on mailing card.

• Kidde-Atmo Automatic Fire Detection Systems are described in a new 12-page booklet available from Walter Kidde & Co., Inc., Belleville, N.J. The brochure points out why this system is needed and then explains in simple terms how the Kidde-Atmo system operates.

For more details circle #142 on mailing card.

• Specializing in fine bronze, aluminum, nickel silver, stainless steel and wrought iron fabrication, Meierjohan-Wengler Company, 1102 W. 9th St., Cincinnati 3, Ohio, has published the new "TL" Folder illustrating and describing its products. Over 100 illustrations of tablets, sculptured plaques, honor rolls, memorials and architectural metal letters in various styles, custom-designed and fabricated, are shown in the folder.

For more details circle #143 on mailing card.

• Designed to help lengthen the life of kitchen equipment, a new 16-page manual, "Care That Counts," is offered by Gas Consumers Service, 230 Park Ave., New York 17. Simple instructions on cleaning and caring for commercial cooking equipment are presented with information on how to determine the basic hot water needs for individual kitchens.

For more details circle #144 on mailing card.

• Wall-recessed, wall-attached and portable types of Safway Telescoping Gym Seats are the subject of a new 16-page catalog announced by Safway Steel Products, Inc., 6234 W. State St., Milwaukee 13, Wis. Included in the catalog are all data necessary in designing for, selecting and purchasing this specialized type of spectator seating for any gymnasium or multi-use hall.

For more details circle #145 on mailing card.

(Continued on page 94)

## NEW DIMENSIONS IN PUBLIC SEATING

Church! School! Office!  
Auditorium! Hospital!

In any situation where public seating is required, Hampden's all-steel, decorator-designed chairs provide the quality answer at an economy price.

For detailed information on the most complete line of adult and juvenile public seating, write today direct.



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Department HS-11



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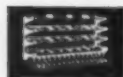
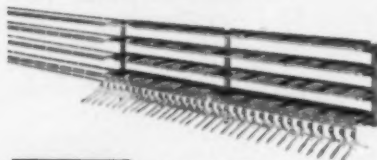
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NOW!

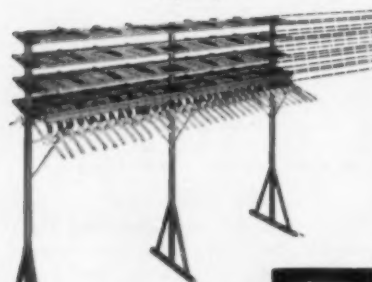
## What's New . . .

### Checker® COAT and HAT RACKS



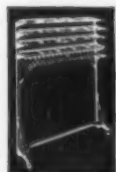
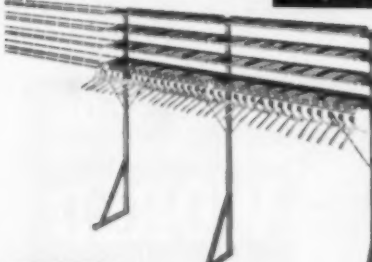
#### WALL RACKS

Basic 2' 2", 3' 2", 4' 2" and 5' 2" units mount directly on wall. Interlocking add-on sections make racks of longer lengths and greater capacity.



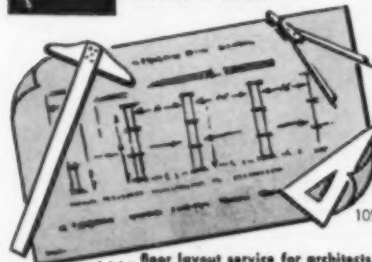
#### DOUBLE FACED . . .

These standard cloakroom racks (with or without checks) hold 8 coats and hats per foot of length. Also available in 4' 2" and 5' 2" portable racks—with shock braces and large casters.



#### SINGLE FACE

Stationary or portable racks fit close against wall. Sections snap-lock together to make rigid assembly that will not sag, wobble or creak.



#### Floor layout service for architects

Let our cloakroom and checkroom specialists suggest equipment requirements and efficient layout. Just send outline of available space, capacity desired and nature of load. No obligations, of course.

Write for Catalog Sheets, CK-16

**VOGEL-PETERSON CO.**

1121 W. 37th St. • Chicago 9, Ill.

• Moisture precautions for laying hardwood flooring with six important "don'ts" are discussed in a new leaflet available from the Maple Flooring Mfrs. Assn., 35 E. Wacker Dr., Chicago 1. The pamphlet, entitled "Please Don't," also has suggestions for installation and care of flooring with emphasis on allowance for expansion, damp season ventilation and preliminary handling.

For more details circle #146 on mailing card.

• The complete line of "Strong Steam Specialties" is the subject of a comprehensive catalog issued by Strong Steam Specialties Div., Strong, Carlisle & Hammond, 1392 W. Third St., Cleveland 13, Ohio. The 60-page catalog includes complete descriptions, dimensions, capacities and prices of steam traps, strainers, separators, valves and engine stops.

For more details circle #147 on mailing card.

• How institutions can stay in operation when power fails or disaster strikes is discussed in a new booklet, "Power for Protection," available from Caterpillar Tractor Co., Peoria, Ill. Form No. D721 shows through illustrations and actual installations how the Caterpillar Diesel Electric Sets maintain power whenever an emergency strikes.

For more details circle #148 on mailing card.

• A 14-minute, 35mm color filmstrip on the nutritional values of turkey is available from the National Turkey Federation, Mount Morris, Ill. The filmstrip, entitled "Eat Turkey—Feel Perky," and the sound disc and illustrated printed commentary give a report on the result of research at Cornell University showing turkey as high in protein and low in caloric content.

For more details circle #149 on mailing card.

• Those interested in complete ceiling illumination for schools, libraries and other areas will find Bulletin LC-1, "Extended Area Lighting," helpful. Available from Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh 22, Pa., it demonstrates the effects possible with Luma Ceiling No. 10 and provides installation instructions, engineering data, maintenance information and Coefficients of Utilization Tables.

For more details circle #150 on mailing card.

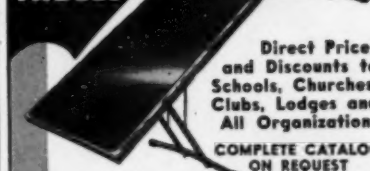
• "Bolts Floor Vinyl Flooring" is the subject of a colorful eight-page brochure offered by the Flooring Division, The General Tire & Rubber Co., Akron 9, Ohio. A two-page spread shows full-color reproductions of the floor and color illustrations picture actual installations. Descriptive information and specifications are included.

For more details circle #151 on mailing card.

• The features of the new "Koch Series M Reach-In Refrigerators" are demonstrated in a new 18-minute sound film available from Koch Refrigerators, Inc., 401 Funston Rd., Kansas City 15, Kan. The film is available to any institution interested in an integrated system of cold-food handling for mass feeding.

For more details circle #152 on mailing card.

### Monroe FOLDING BANQUET TABLES



Direct Prices and Discounts to Schools, Churches, Clubs, Lodges and All Organizations

COMPLETE CATALOG ON REQUEST

### TRUCKS FOR FOLDING TABLES



Monroe TS (transport - storage) Trucks make handling and storing of Folding Tables easy and quick. Combination offers.

### STEEL FOLDING CHAIRS



Monroe Steel Folding Chairs in attractive range of styles, sizes and prices. Excel in comfort, easy handling and durability. Also full line of non-folding chairs, desks and combinations for classroom, cafeteria and church school use.

### PORTABLE PARTITIONS



Monroe's new movable partitions change idle space into useful areas. Smooth Masonite panels, tubular steel frames. Swivel pedestals, casters or glides.

**THE Monroe COMPANY**  
77 Church St. • Colfax, Iowa

• Facts on architectural porcelain are discussed in a new folder entitled "Five Grades of Architectural Porcelain . . . Which Are You Getting? . . . How Long Will It Last?" Quality features of good architectural porcelain are described and the reasons for each feature are illustrated. The folder is available from Davidson Enamel Products, Inc., Dept. 5W, 1104 E. Kibby St., Lima, Ohio.

For more details circle #153 on mailing card.

• A 16-page brochure released by Diebold, Inc., Canton, Ohio, discusses the value of visibility in record keeping. The advantages of the Tra-Dex Vertical Visible Record System is the subject of the brochure entitled "In Record Keeping It's Visibility That Counts." A simplified step-by-step analysis of the Diebold way to use visible margins more effectively is presented in the illustrated brochure.

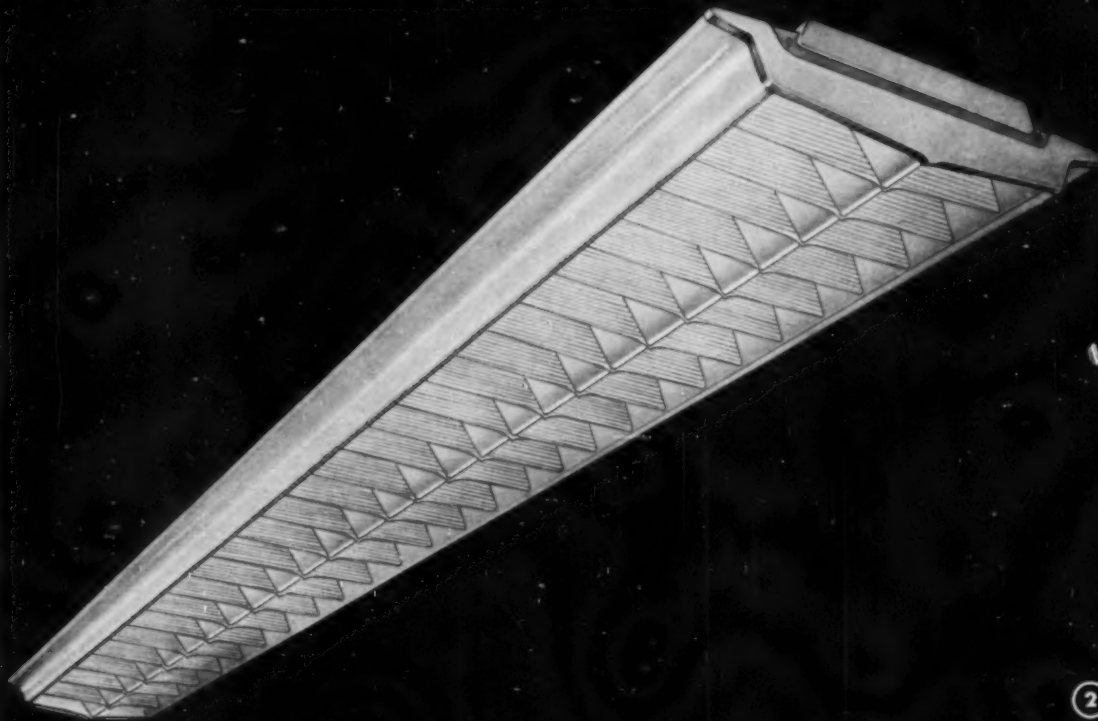
For more details circle #154 on mailing card.

### Suppliers' News

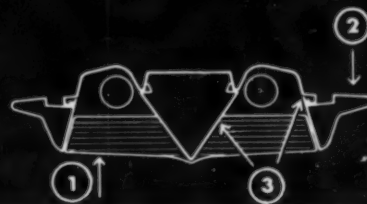
Eastern Products Corporation is the new name of the corporation formerly known as the Eastern Venetian Blind Co., 1601 Wicamico Ave., Baltimore 30, Md. The change was necessitated because of the variety of lines related to venetian blinds now manufactured by the company.

Eberhard Faber Pencil Co., manufacturer of specialized writing instruments, from pencils to colored art chalks, has moved from its 21-building plant in Brooklyn, N.Y. to a modern pencil factory at Crestwood, Wilkes-Barre, Pa.

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CONTROLS BRIGHTNESS MORE EFFECTIVELY  
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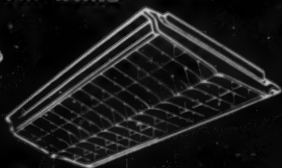


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members of the firm Engelhardt, Engelhardt, Leggett and Cornell,  
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SCHOOL PLANNING AND BUILDING HANDBOOK does not deal in generalities—it is the most specific, practical work ever published in this field. It is a priceless reservoir of vital facts which will be a constant aid to you in your building program.

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7. Planning for Equipment, Furniture: Trends in Equipment, Responsibilities
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12. Contract with the School Building Architect
13. Contract with the Engineer: Specialized Engineering Problems, Engineer's Fees and Contracts
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November, 1957 (b)

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November, 1957 (a)

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